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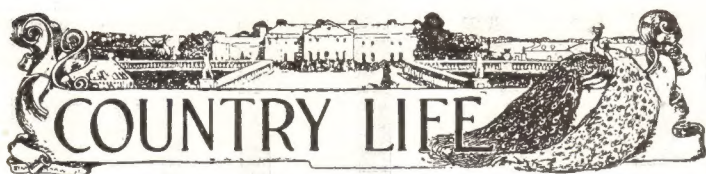
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RICHARD N. SPEAIGHT.

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LADY BEATRICE POLE-CAREW AND CHILD.



THE Journal for all interested in

Country Life and Country Pursuits

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THE FIT AND . . . THE UNFIT.

IN the daily newspapers the discussion of what is alleged to be our physical deterioration is carried on with a vigour that shows how seriously the subject is taken. To get at the real facts is extremely difficult. Since the beginning of time the fit and the unfit have lived side by side, and it proves nothing to show that there are degenerates in our midst to-day. There have always been degenerates, and the question is not in regard to their existence, but in regard to the proportion they bear to the numbers that existed before. Many tests that at first glance appear to be decisive do not come out so when closely considered. For example, much has been made of the number of recruits rejected from the Army on account of physical unfitness, but on this point there are two things to be said. First, that the surgeons did not use to be so particular as they are now; and, secondly, that much of this so-called physical unfitness is mere fad on the part of the War Department. It is customary, for instance, to refuse men on account of their bad teeth, but a very good story is told of a recruit for South Africa who, on being rejected on this account, asked whether he was intended to shoot the Boers or to bite them. There are very few people in this country, young or old, whose teeth are absolutely perfect, and doctors might go on rejecting the whole community if they carried this test out to its furthest limit. It is well known that many of the other so-called defects which are supposed to unfit a man for the Army, are merely theoretical. In other words, the man in whom they are found can ride as well, march as well, and shoot as well as his nominally quite healthy neighbour. The War Department might very well be called upon to revise their means of testing recruits.

Another point is that a few generations ago the Army was very largely recruited from the country districts, and the young yokels were, as a rule, tall and healthy. Now a recruiting sergeant would find it difficult indeed to get "food for powder" in an agricultural district. He has to go to the slums and back streets of towns, and pick his soldiers from those who, as a rule, are physically degenerate. Thus the Army test is not one that can be applied fairly to the whole of the population.

On the other hand, the death-rate, which is used as an argument to prove that we are more healthy than our forefathers, is not absolute either. Modern medical science is frequently exerted to prolong the life of the physically unfit. It has shown the old how to lengthen out their days to the utmost limit. It has guarded those afflicted with incurable disease, and even those confronted with death are able to steal a certain portion of time from the enemy. These facts must affect the death-rate, but in our opinion they do so to a scarcely perceptible degree. The average life is, as far as can be gathered from statistics, really longer now than it used to be in the old days, and that is quite a reasonable deduction from the facts. If we take the poor, who are by far the largest majority in the country, everything is done to promote greater health among them. They are better housed than were their grandfathers, against whose cottages Charles Kingsley used to declaim. At least, every succeeding census shows a decrease in the number of one-roomed cottages, and the modern sanitarian has stepped in and removed the middens and other plague-causing nuisances of the village. The peasant, too, is much better fed, or annually we should not be buying a quarter of a million worth of foodstuffs from abroad, as well as increasing our producing power. Again, taking them through all the classes, the women who are the mothers of the next generation are much healthier and stronger. The woman in a poke bonnet of early Victorian days bore the impress of household labour on her figure and carriage. She did not know what outdoor amusements were. The bicycle had not been invented for her, and during her school time she was not permitted to play such games as lawn tennis, hockey, and golf. To the disinterested spectator the women of to-day look taller, handsomer, more athletic, and more generally healthy and wholesome than any the world has ever known before, not omitting the Greek and Roman women. It stands to reason, then, that they should become the mothers of "bairdly" sons and daughters like unto themselves, so that by that avenue deterioration is not entering. Our women, as Sir Redvers Buller said of his men at Colenso, "are splendid."

Where, then, do the undeniable signs of degeneration come from? We do not think the question very difficult to answer. Wealth has its drawbacks as well as its advantages. Thousands of people who could not afford to marry and beget children under the old conditions are able to do so now. We refer, of course, to those who are living on the border-line of starvation, so that the remark has no reference to the general decrease in the marriage-rate and in the birth-rate. It simply means that the scrofulous and consumptive members of the large towns are enabled to perpetuate their species by adding to the cripples and invalids and consumptives of the world. That deterioration is setting in in that quarter it would be impossible to dispute, but how are we to guard against it? Public opinion would not tolerate a law that interfered with the legitimate freedom of adults, and it is of little use to lift one's voice against the practice of the consumptive factory hand uniting himself to the consumptive shop-girl as long as we know it cannot be stopped. But proper education might do something indirectly, and that, we believe, is the only remedy. If the intelligence of these people were raised to such a degree as to enable them to see that the perpetuation of their kind could add nothing real to their own happiness, and was detracting from that of those who come after, their own common-sense might act as a restraining influence. Undoubtedly, too, there is a tendency in this age, especially among the very poor, to neglect the feeding and treatment of children. Those who have made careful enquiries into this aspect of the matter have many strange tales to tell of the factory girl's ignorance of the duties of motherhood. Here, again, educated influence might be brought to bear, and it is also a matter that might fairly be attended to by the medical or other officer, since the life and welfare of others depend upon a woman's proper discharge of her duty in this respect. It is by giving attention to many apparently minor points of this kind that we will be enabled at the end to root out deterioration from a community that, on the whole, must be described as a healthy one.

Our Portrait Illustration.

OUR frontispiece this week is a portrait of Lady Beatrice Pole-Carew and her eldest child. In 1901, Lady Beatrice, the eldest daughter of the Marquess of Ormonde, married Major-General Sir Reginald Pole-Carew.



PARLIAMENT meets again on Tuesday, and the protracted Cabinet meetings of the last few days testify to the gravity and urgency of the questions that are likely to arise during the coming session. It seems probable that the Government will, as far as they can, avoid fiscal discussions until the time comes for a dissolution to bring the question prominently forward for the decision of the country. But there are two very important points that, quite apart from party politics, must command serious attention. One is, what part we shall play in the drama now being unfolded in the East. Even if the present quarrel were made up, it is the opinion of most statesmen who are qualified to speak authoritatively on the point that at no distant time the quarrel would break out again. Two aggressive nations cannot live side by side without one of them becoming the master, and the effect of such a conflict on our Oriental interests may well be a case for grave deliberation among Cabinet Ministers.

The other point is the financial one. Mr. Austen Chamberlain as Chancellor of the Exchequer has to face a diminishing revenue, and an expenditure that has swollen vastly during the past two decades. He can scarcely meet the deficit by extra taxation, because the country, having with great good nature paid what was required of it for the South African War, is likely to revolt against any attempt to increase its burdens at the present moment. A method of retrenchment must be discovered, and that is a difficult problem for the Chancellor of the Exchequer to face. We are given to understand that whatever expectations may be formed of the revenue to be derived from fiscal duties, there is no intention of attempting their imposition till the verdict of the country has been taken. Thus Mr. Austin Chamberlain's resources are strictly limited to those which were possessed by Sir Michael Hicks-Beach, and it is a matter of more than intellectual interest to see what device he will hit upon to meet the increased requirements.

The Germans are finding that their little war in South-West Africa is not a trifling matter. As we write, in fact, the situation may very properly be described as alarming. The Hereros have laid siege to Windhoek, and some 5,000 or 6,000 troops are camped round it. Another small party of Germans is besieged near Keetmanshoep. It will take some time for reinforcements to get out, and until their arrival there appears to be great danger of massacre and destruction. It would be absurd to doubt the ability of the Germans to suppress this rising, but the proportions it has attained appear to have taken them by surprise, and they had made no preparations for the emergency.

The long and somewhat squalid drama of which Mr. Whitaker Wright was a central figure has had a startling and sensational climax. After an elaborate and, as Mr. Justice Bigham said, a well-balanced trial, Mr. Wright was on Tuesday afternoon sentenced to seven years' penal servitude. That the punishment was deserved no one who has followed the case is likely to dispute. The transactions connected with the notorious balance-sheet of 1899 rendered a severe sentence inevitable, but there is an old saying that death pays all scores, and it was Mr. Whitaker Wright's fate that he should expire within a very short time of receiving his sentence. Perhaps, on the whole, it was the best thing that could happen. Seven years' penal servitude to a man at his time of life meant not only punishment, with its accompanying disgrace, but that his chances and his ambition alike were ended. And now that he is dead friend and foe alike will agree in saying as little as they can about him, knowing that the only kind thing left is to be found in utter forgetfulness and oblivion.

There has been a "chiel amang us takin' notes" in the person of Signor Righetti, Italian Vice-Consul in London, and he has printed them for the benefit of his nation. He was asked to make enquiries in the agricultural districts of England as to

what opening there might be for Italian peasants who wished to emigrate to Great Britain. The report he has made is a curious mixture of fact and fancy. Signor Righetti notes that agriculture in England is gradually being abandoned, and holds that this will go on, owing to the impossibility of making the cultivation of land a remunerative occupation. He does not think that there is any room for the Italian peasant, though he misses the point that this is owing to the more general introduction and use of machinery. He says, rather naïvely, that English opinion is against foreign labourers, and ends by recommending the peasant to go to one of the colonies. If Signor Righetti had tried to purchase or rent land in Great Britain he would possibly have found reason to revise his pessimistic opinions.

THE HOUR GROWS LATE.

The hour grows late, you linger yet,
Beyond those broad sands gleaming wet,
Clouds from the red sun for a space
Lie mirrored on that lonely place,
Ribbed smoothly by the long waves' fret.

Over the hills the day has set,
The fisher draws his last brown net,
And shoreward turns a happy face—
The hour grows late.

And now when Day and Night are met,
Can the grey Sea his tryst forget?
As up the land the waves retrace,
Their morning path with laggard pace,
Moans still a voice, with vague regret,
"The hour grows late."

W. A.

On Monday last the long-expected hour came when the manuscript of "Paradise Lost" was put up to auction at the rooms of Messrs. Sothebys, Wilkinson, and Hodge. The competition for it was not by any means so keen as had been expected. Dr. Ginsburg started the bidding at £50, and eventually it was carried by Mr. Hodge to £5,000. This, however, was the reserve price, and no advance being made upon it, the auctioneer declared that the lot had been "bought in." Since then it is said to have changed hands by private contract. Public interest, never very keen, has waned in regard to it. At the best the manuscript is a mere curiosity; and as it was, after all, dictated by Milton and not written by him, it has not the preciousness of personal association. We cannot for our own part see that the country would be in the slightest degree the poorer were this document to pass out of it for ever.

On January 25th the same kind of wind that more than a century ago blew "hansel in on Robin," was howling about various public-houses where enthusiastic Scots were drinking to the immortal memory of the bard. Alas! W. E. H. is no longer with us, to follow in the morning with an anathema of the common Burnsian—the bleating, "Scots wha haeing," sorry enthusiast, who from the rich bequest left by Burns, his idol, has selected only the cheap and the sentimental at which to burn his incense. However, various writers of more or less standing were called in to pronounce Robbie's eulogy, and perhaps the most curious piece of satire was that perpetrated by the Edinburgh Burns Club when they induced an Irishman, in the person of Mr. T. P. O'Connor, to discourse on the merits of the first of Scottish poets. Alongside of this fact it may be noted that one of the Burns clubs in the provinces is also a temperance society, which appears to be a contradiction in terms. On the whole, no one will grudge the Scotch this merry-night. It is good for them to sing "Willie brewed a peck o' maut" and "Auld Lang Syne" and "Scots wha hae" and all the rest of it. At least they can urge this reproach—that we in England have no poet so dear to the heart of the multitude.

In one of the magazines for February, Mr. H. W. Lucy has a discourse that will appeal to many, about the old familiar faces that have disappeared from literary London. There is James Payn with his wit and geniality; George Augustus Sala, whose name was one to conjure with in the columns of "the largest circulation in the world"; and J. R. Robinson, in later days Sir John. It is always affecting, and in a melancholy way pleasant, to recall the names and features of those little groups that go laughing and talking over the world's stage out of darkness into darkness again, their place immediately after, taken by others. The natural lament raised by the survivors, "All, all are gone, the dear familiar faces," has inspired much of that sort of literature which we do not perhaps set on a high pedestal, but which is always read with an interest that is perhaps too poignant for pleasure.

The *Daily News* has rallied to the support of the political vocabulary of the present day, and takes us to task for asserting that such party names as "Whole-hogger" and "Free-fooder"

are both vulgar and illiterate—cabman's English, in fact. The writer retorts by referring to the Macaulayese (another verbal impurity) of the older papers. We suspect he knows very little about the latter. The force and trenchancy of such papers as the *Saturday Review* between thirty and forty years ago would certainly put to shame the most democratic paper of the present moment, and the writers in that celebrated paper did not condescend to the forcible-feeble imitation of strength which the journalists of to-day attempt through the use of street and slang expressions. Even the politicians of the time were certainly as vigorous as any who are on the platform now. Benjamin Disraeli and W. E. Gladstone "got home," to adopt a phrase that no doubt our critic would admire, on each other as effectively as Mr. Chamberlain, for instance, does on Sir Henry Campbell-Bannerman, and they did not resort to such phrases as those which seem to be dear to our contemporary.

Mr. Jonathan Hutchinson in the *Times* of Tuesday wrote two columns of most pertinent advice as to the prevention of leprosy. What he says may very possibly escape general attention, because this disease is not in Great Britain the terror now that it was in the Middle Ages, though there are other countries where it still remains a scourge. Mr. Hutchinson's explanation of it is that it arose from the custom of eating fish in a high or partially decomposed state. We have evidence that the *bons vivants* of mediæval times hung their fish just as we hang our pheasants and partridges to-day. There is a stage in civilisation in which an appetite for half-rotten fish is developed, but, as Mr. Hutchinson points out, once this is overcome, the revulsion from it is very great indeed. Now, if it were fish that caused the disease, it is evident that a vast amount of needless cruelty was exercised in the past, and still is exercised in the present, on the assumption that the disease was spread by contagion. At the present moment there is an island off Cape Town containing 500 lepers, who are absolutely imprisoned and cut off from society, doomed to pass the remainder of their lives in a manner as irksome as solitary confinement.

Obviously the remedy for this state of affairs is the better regulation of the fish market. In our own country not much remains to be done, because our sanitary inspectors are down upon every case they discover of salesmen trying to get rid of stale fish. But there are other markets where the regulations are not so severe, and these ought to be grappled with. Mr. Hutchinson refers to another contributory cause which deserves serious attention. This is the custom of the Roman Catholic Church to ordain that while flesh may not be eaten on Friday, it is permissible to eat fish. Mr. Hutchinson, who, needless to say, writes without any religious prejudices or any desire to injure or traduce the Roman Catholic Church, avers his conviction that "onwards from the time of their institution the fasts of that Church have been largely conducive to the extension and prevalence of leprosy." It would seem, therefore, that his demand is a very reasonable one, and that some reform should be introduced into the Church by which the fast might either be removed altogether, or fish and flesh be put into the same category.

"The Geographical Pivot of History" was the catching title used by Mr. H. J. Mackinder for an address delivered to the Royal Geographical Society the other night. The point he made is an important one. Very little remains to be discovered of the geography of the world. Even the latest North Pole expedition, were it as successful as the most sanguine ever dreamt of, could disclose little of any material value to humanity. The undiscovered fields of snow have no interest beyond that of curiosity. Moreover, what used to be the unknown portions of the globe have not only been explored and measured, but they are divided among the nations. Africa, America, Asia, all, as it were, have had claims pegged down on them, and the international struggles of the future are not likely to be about territory, as in the past, because the majority of the nations will not allow anyone to take territory from neighbouring states to any important extent. No doubt there will be struggles, but the likelihood is that these will be in regard to commercial supremacy. That is at the root of the antipathy between England and Germany. They are rivals for the supreme commerce of the world. Whether the geographical pivot might shift, and Russia come romping in with a claim to supremacy above all the others, is a question that invites speculation. It would involve a complete change of what Mr. Mackinder calls "the geographical pivot," and the events of the next few years will be closely studied, with a view to comprehending the chances of its occurrence. All the same, with Mr. Spencer Wilkinson, we hold that the supremacy of Russia would be a world-wide calamity.

Dr. Bernard Dyer in his report to the Leicestershire Agricultural Society drew attention to a remarkable discovery

he had made during the previous year. While investigating the cause of several deaths among lambs, he discovered in the animals small dense balls of "felt" hairs, varying from the size of a tennis ball to that of a walnut. On further examination these balls were found to consist of the minute hairs that grow on the stalks of flower-heads of ordinary trifolium. A similar discovery was made about the same time by Dr. Voelcker while examining into the causes of deaths among sheep in a different part of the country. In both cases the animals had been largely fed on trifolium hay. From these facts it would seem that while trifolium, in its green state, may make an excellent fodder, it may become a source of great danger when dried. The minute hairs are not only indigestible in themselves, but each hair being covered with minute serrated spines, the mass is liable to felt together in this remarkable manner. It could not be ascertained, of course, whether sheep had died from the same cause in previous years, or if the past season had produced coarser trifolium, or a more than usually hairy species. Further investigation this year may throw valuable light on the subject.

It is not often that such an engineering feat is attempted as the diversion of a river across an entire range of hills; but this is what is involved in a remarkable irrigation scheme which is now being taken in hand in Southern Italy. The stream which is singled out for attack is the Sele, which at present flows down into the Mediterranean not far from Salerno. It is proposed to tap the sources of the river on the western slope of the Apennines, and to carry its water through the crest of the mountains for the purpose of bringing an adequate supply for agricultural purposes to the badly-watered district on the eastern side of the range. The contract is to be put up for auction within the next few days.

THE OPEN DOOR.

"For the wind passeth over us, and we are gone; and the place thereof shall know us no more."

I often think that there may come a time
When this odd aimless medley of a world
May cease to charm my heart and soul and mind.
And then, too proud to fall, too tired to climb,
With faith contented, with ambitions furled,
I shall go out—and leave it all behind.
A little thing—by mine own will and hand
To slip unnoticed out into the night.
An easy thing—unworthy of regrets,
And I am sure my friends will understand,
For darkness tempts one after years of light,
And one is soon forgotten, soon forgets.
'Tis likely some will call me fool or blind;
But I shall just be turning home again.
Too weary to go out the way I came,
I go *this* way—and leave it all behind.

M. R.

A striking notion of the part which the parks and open spaces play in providing outdoor life for Londoners may be gained from a lecture, dealing largely in collective figures, which was delivered the other day to a London audience. The open areas under the control of the London County Council amount to nearly 5,000 acres, and they at present contain more than 500 tennis courts, nearly 400 cricket pitches, about half that number of football grounds, and scores of quoit pitches, bowling greens, lacrosse courts, hockey grounds, and skating rinks. Opportunities for bathing are provided in many of these public resorts, and on a single day there have been as many as 10,000 bathers at Victoria Park, the great recreation ground of the crowded districts of East and North-East London. The cleaning capacities of even the most extensive sheet of public water must be somewhat severely taxed by such a degree of popular appreciation; and this is perhaps only the extreme instance of an excess of demand over supply in all these means of healthy recreation with which it is almost impossible to cope. The spectacle of one of the frequented portions of the London parks on any fine Saturday afternoon in summer, with scores and scores of games of every kind in full swing almost as far as the eye can reach, is really one which it is worth going far to see.

Our ornithological contributor, Mr. Finn, has made a suggestion that has excited a considerable amount of notice in the papers. He is overburdened with a sense of the extraordinary numbers of pigeons that hang about our public buildings and even our private offices, but is too much of a humanitarian to fall in with the suggestion that they should be trapped or shot. His own idea is of a killing that would be no murder. He would reinstate in our parks the once numerous kite, or, as he is called in the North, "the puttock." Once this bird was quite common about Covent Garden, and if he could be induced to come back, he would thin out the pigeons, and at the same time afford Londoners an opportunity for observing a display of natural

falconry that would be a novelty. He would also have jays and magpies rehabilitated, so that they might keep down the sparrows and other small birds that threaten to become a nuisance, and thus in a sense restore that balance of Nature which man has upset, and for which he has to pay the penalty.

Quite a feature of the bird life of the year is the number of waxwings—a rare species that often is not recorded throughout a season—seen in many widely distant parts of the island.

Thus, they are recorded from North Berwick in Scotland, from Hayward's Heath in Sussex, and from several intermediate stations. The waxwing is not a large bird; it is a bird that comparatively few people would recognise when they see it. The more's the pity that it should, as Mr. Kay Robinson records, be mercilessly shot by some "sportsmen," although spared by that frequently maligned individual, the gamekeeper. As specimens can easily be obtained from abroad, there is no excuse for killing them here.

SHELTIES AT HOME.

AWAY to the north of Scotland lie the group of islands in which the diminutive horses, commonly called Shelties by Southerners, have their home. The Shetlands, to give the islands their proper appellation, are not all inhabited, some of the smaller islets being used merely as pasturage for a few sheep. There is little to attract either the agriculturist or the merchant, so progress is but slow; the islanders till their land by very old-fashioned methods, and many of them still have recourse to barter as a means of obtaining necessities.

To the lover of the beautiful and the artist there is much to charm. Some, perhaps, would describe the islands as barren—but what barrenness! The country, though absolutely destitute of trees, is so varied in the nature of its scenery that their absence in no way detracts from the general beauty of the landscape. Countless tarns, streamlets, and lochs all serve to make the colouring of the heather-covered hills and the gloomy tints of the moors stand out in pleasing contrasts, while near the sea bold cliffs tower in rugged beauty over the blue waters, whose waves dash ceaselessly against their rocky sides. Overhead numerous sea-birds circle around on their way to the



C. Reid, Wishaw, N.B.

A FAMILY GROUP.

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nests they have built on convenient ledges out of harm's way. The islands are divided by narrow straits, in which the tides are very rapid and often dangerous, and it takes all the canniness and caution of the Shetland fishermen to guide their boats into the voes—long arms of the sea—which intersect the islands in

all directions, making natural and safe harbours for the seafarers and their craft. The little ponies who are natives of Shetland, with their rough shaggy coats, flowing manes and tails, seem somehow to suit their wild, rugged surroundings, and the groups of them that are scattered about seem to add the necessary life to the landscape.

Perhaps it is a question of the survival of the fittest that makes these little creatures so very small, as horses of a larger type would be useless on the boggy moors or on the stony hillsides. Brand, the historian, in a book published in 1701, wrote: "The coolness of the air, the barrenness of the mountains on which they feed, and their hard usage, may occasion them to keep so little, for if bigger horses be brought into the country their kind



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ON THE MOORS.

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within a little time will degenerate; and, indeed, in the present case we may see the wisdom of Providence, for their way being deep and mossie in many places, these lighter horses come through when the greater and heavier would sink down; and they leap over ditches very nimbly, yea, up and down rugged mossie braes or hillocks, with heavy riders upon them, which I could not look upon but with admiration. Yea, I have seen them climb up braes upon their knees, when otherwise they could not get the height overcome, so that our horses would be little, if at all, serviceable there" (in Shetland).

With the exception of a few sheep farms, the greater part of the islands are occupied by crofters, and these, being but poor folk, cannot afford to give much feeding to their ponies, so these hardy little animals run wild in herds on the hills or scatholds, picking up what food they can find. When the bleak wintry weather comes on they find their way down to the seashore, where they derive a scanty living from the seaweed which grows upon the rocks, or has been left by the high autumn tides and freshened by melted snow or rain. At this time of year, too, they will gather in groups near the homesteads, and are rewarded with an occasional truss of hay.

In spite of this precarious existence, the Shelties seem happy enough, and they are extremely hardy. They are possessed of extraordinary strength for such small creatures, being able to carry a man or woman with apparent ease quite long distances. They are not much used for agricultural purposes, and though very docile and tractable, do not seem suited for this work. Their owners use them chiefly for carrying peats from the moors, or for taking farm produce to market. When employed in this manner a special saddle is used, which is locally called a klibber. This contrivance consists of two flat

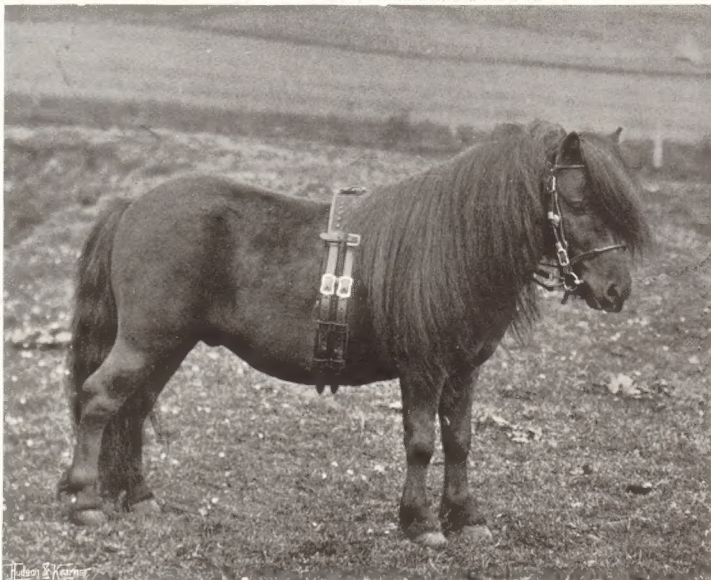


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A DROVE OF PONIES.

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pieces of wood, roughly rounded off to fit the back of the Sheltie. These pieces of wood are fastened together by two more, which fit diagonally into one another, the top ends projecting. The



C. Reid, Wishaw, N.B.

CAPTIVE.

Copyright

two protruding ends are used as hooks to hang the baskets on. The baskets are made of straw, and are called caishies. The nature of the ground is so soft and boggy that it would be impossible to cart the peats, but the nimble Sheltie carries home his master's fuel in safety. Often one meets a small herd of these sturdy little creatures, the caishies on their saddles loaded with peat, and accompanying them a number of picturesque women and girls, all busily knitting as they walk along. In former times there were few or no roads in the islands, and the Shelties performed all the carrying that went on between one place and another. Even now, with the introduction of roads and carts, the fishermen and crofters find it hard to depart from the old custom.

Unfortunately for the Sheltie, it was not long before the eagle eye of the coal proprietors discovered the utility of so small an animal in the narrow seams of the coal-mines, and

large quantities of the little creatures were bought up and transported to England and parts of Scotland. As the supply was hardly enough for the demand, several years ago some enterprising persons bought up some of the best ponies and started breeding them in large numbers for export. It is quite a pathetic sight to see a big boatload of these little creatures, who have hitherto been as free as air, leaving their home for ever. Most of this living cargo is destined for the mines, but some of the best specimens are bought by private persons as riding ponies for children. They are admirably suited for this purpose, as they are most sagacious, and, as a rule, when kindly treated, very good tempered. In the coal-mines their value



C. Reid, Wishaw, N.B.

BY THE SEASHORE.

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may be understood when the amount of work they do is realised. It has been stated on good authority that each of these little horses travels over 3,000 miles during the year, and "shifts" as many tons of coal. It seems cruel to bring the ponies from the fine air of their native hills and moors to the black darkness of the mines; but, though their lot is undoubtedly hard, they are well fed and usually kindly treated, and their drivers are, as a rule, much attached to the clever little steeds, who learn their work with surprising quickness, and give little or no trouble. Owing to the even temperature of the mines they are hardly ever ill, and the popular fallacy that all pit ponies go blind is not the case, blindness only occurring as the result of accidental injury.

Formerly, Lord Londonderry possessed the largest herd of Shetlands at Bressay and other localities, but he had a dispersal sale some years ago, and Mr. Anderson Manson, who has been breeding ponies for forty years, is now probably the largest owner. In order to supply the demand he always requires to have in his possession several hundred ponies. Most of the photographs illustrating this article were taken either at his farm at Maryfield or at Veensgarth. Nearly all the animals in the pictures are either prize-winners themselves or from prize stock.

Shelties are charming pets, and for those who can afford it prove an interesting hobby. It must be remembered, however, that with richer feeding and a more genial climate they are apt to increase in size unless very great care is exercised. It is, perhaps, to guard against this, and as a warning to English breeders, that no pony over 40in. is allowed to be entered in the Shetland Stud Book.



C. Reid, Wishaw, N.B.

purple colour against the blue sky. When the stones were warm to the touch, the lazy snails clung close, and basked there in the sun in their brown and yellow shells, sometimes by glinting trails which showed where they had dallied in the long evening before. It was beloved, too, by great green bluebottles, that clung silently to the crumbling stone, or buzzed away in sudden jerks as you passed. Just under the old and ivy-smothered tree the wild bees made a nest, and day after day hummed intermittently,

A FRIENDLY GREETING.

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as the summer slowly passed, among the flowers, visiting as they came the white and crimson clovers, the flat stretches of shining daisies, the wild sweet roses of the hedge, the great yellow kingcups down in the marsh, the sweet-scented thyme, the blue forget-me-not. Later, when "on the long ranges of the hills" the heather was over, they stole among the last red asters and the mignonette that grew in cottage gardens down the road, and until late in autumn one or two were always to be seen suspended before the entrance to the nest, their dusty wings quivering till they were unseen in the clear yellow sunlight. In those late days the leaves of the chestnut drifted down, and lay and rotted black on the wall, the dandelions flared like the last flame of the dying summer, and over in the cornfields, when the great moon rose, the shadows of the stooks grew long.

Now, in January, the moss and the lichen only hold their sway, with here and there a few golden cups of fungi. Where the foxgloves and the harebells were a few wet dead nettles wave black melancholy flags, drear-looking objects save on frosty mornings, when the white rime covers them, and makes them into soft uncurling "Prince of Wales's feathers." Along the tree-twigs the rain-drops gather, and drip, drip on to the wall, and turn into silver as they steal over the green moss; the blackbird digs his yellow beak deep down into the brown earth; there is a twig of mistletoe sticking out of the oak-tree bark. But, ah!

"I wonder if the sap is stirring yet."

And, indeed, premonitory signs are not wanting that it is already beginning to stir. The first daisies of the year, sweet enough to remind one of lines in Chaucer and Burns, begin to peep shyly out at the wayside, and here and there a sturdy bit of coltsfoot is thrust boldly out of the mould as if looking round for spring. Even in that tranquil rest which comes to all wildings with winter, there is promise of the tide of life which a little later will come rushing over wood and meadow, bringing growth and colour and music. And the old brown wall will have its share of the beauties which spring bestows. Its lichens and mosses will assume a more vivid glow, and a million tiny plants, almost too small to be distinguishable, will come to its stone, what time the pintail returns to nest, and the robin and the wren are busy investigating the crevices with an eye to a "desirable family mansion," and the prospect of a happy ending to their love and courtship.

AN OLD WALL.

IT is built of soft grey stone and old red sandstone, with here and there a piece of quartz to sparkle when the sun shines, and here and there a ruddy half brick to relieve the soft monotone of stone colour. It is a dry stone wall, and most beautiful on wet winter mornings when the robin tells his beads there, swinging among the purple bramble thorns, and the peacock comes from the farm and struts along the top, trailing his sheeny tail among the wet. The mosses and lichens that spread all over the stones are then washed fresh from the dust of the road, and gleam out in their most brilliant colours. The mosses vary then from faint chrome yellow tones to deepest emerald green; orange yellow and olive green run over each other, purple and soft sienna browns overlap, and seek out crevices each in the other's territory, while every here and there the brilliant emerald of a deep patch of moss gives way to a long soft stretch of lichen, where grey-blue shades into grey-green—the colours of the clouds at dawn when they lie over the sea. On the top of the wall the roadmen have laid layers of sod, whereon the moss has crept riotously and the wild thyme blows. Clover clumps, strayed from the hayfields of last year, and ragged mayweed have found root there, with patches of stoncrop in between hanging in great masses that in places lean down and touch the footpath with a finger-tip.

In the spring a few light fronds of fern may steal out of the crevices and, lying over the stones, make a mottled shade on the wall in the morning sun. A few bracken may uncurl on the top in silver and green; a brown beechnut that has lain the winter through may burst and push a soft green foot into the sod. Over in the field beyond the lark will rise from the green upspringing corn, and trill and trill. Last summer the light harebells waved there, and rang in the summer and the long dog days; the great foxgloves came later, and shot up high above the wall, making blotches of hot red

A SUFFOLK RIVER.

SUFFOLK, our most eastward county, was in all probability the first portion of England, as it exists geographically to-day, to cradle the infant human race, for long before Roman, Saxon, or Dane set foot on its sloping shores paleolithic man had made a home in Suffolk, when, apparently, England was not an island; and, strange to say, up to the time when the percussion cap superseded the older flintlock, a famous and flourishing manufacture of gun-flints was carried on at the very spot where there is abundant evidence that men of the Stone Age made their flint implements of war—surely a record in the long continuity of a local industry!

Hard by, at Icklingham, the great Icenii held their capital

until some time after the beginning of the Roman invasion; and in scarce any other county are there so few relics of Roman settlement.

Later came the Saxon raiders from overseas, the Danes following, and by these the native Celtic race was exterminated; and to the lack of the enlivening character of Celtic blood may be attributed the rather too stolid disposition of the typical East Anglian. The wild mountain fastnesses and rock defiles have not contributed to the development of his imagination, but only the far-reaching "saltings," or salt marshes, bordering the sea, and the broad water-meadows stretching away to the horizon, with here and there round wooded hills, the watershed of the slow rivers. Yet is not Suffolk devoid of its eminences, though

these, like the luscious face of the county generally, are soft and inviting, and never precipitous and wild; and at the foot of these hills, silently flowing, are the rivers which, perhaps more than anything else, characterise the county. Of these rivers, those that flow to the sea change their character long before reaching it, broadening out into vast estuaries, filling valleys which were

and forgotten in the tide of civilisation flowing westward and to the north. To follow the course of the Deben, the Alde, and the Blythe is to traverse a fairyland of sparkling meadows and jungle-like reed-beds, where the small beginning of the broad river causes the rushes to sway to the music it makes with the enamelled stones,

"Giving a gentle kiss to every sedge
He overtaketh in his pilgrimage;
And so by many winding nooks he
strays
With willing sport to the wild
ocean."

After the gay glitter of the gorse-covered commons swelling on either side, after the glistening spear-like reeds, the gem-like sparkle of well-nourished marsh flowers, and the deeper green of overhanging trees—for it is by such pleasant scenes that our Suffolk river lingeringly wanders from its inland source—the sea at the river's mouth looks grey and cold. Out of that grey sea came the relentless foe to pillage, devastate, and conquer, and the many creeks made convenient harbourage. Centuries after, in happier times, the sea still played its part, the same creeks sheltered a busy fishing fleet, and out on that grey sea men battled with the sea for its treasures, many finding a grave in its unfathomed depths. And trading craft came from distant ports, carrying back grain in exchange for various freights. Enterprising Dutchmen, long years ago, would run into the Blythe with herrings before the English fishery was properly established, an ancient Dutch "buss" being dug up in a by-water, thereafter known as Buss Creek. And there is good reason for believing that long after the alert Exciseman had suppressed illicit imports generally, smuggled goods found their way to Ipswich and elsewhere by way of Blackshore and Wenhamston, on the Blythe. (See P. H. Emerson's "Pictures of East Anglia.")

But now change and decay are everywhere visible; no effort has been made to check the despoiling hand of Time, solid buildings of brick and stone well planned for holding stocks and stores stand roofless and crumbling. Wharves and quays are rotting, and the huge baulks of timber are silently mouldering from the iron bolts that held them, piers and piles slip gradually into the sluggish water, and no one heeds.

Verily this is "A Deserted Shore." Yet has the mellowing touch of Time lent the place a certain beauty, clothing it in raiment of rare colouring more deftly than any tiring woman. Herbage could not be greener, and is rarely so green as this,

which, through countless ages, has formed, like a bed of down, on every knoll of vacant earth, where growth is not choked by the river ooze. The ooze itself, like the water which bore it hither, reflects each change of hue and varying light from the sky—black and steely blue under the gathering rain pall blown in from the sea, golden and fretted with a score of tints as a shaft of sunlight bursts from the riven cloud; lichens and mosses, despite the exposure to fierce salt gales, clothe the walls, and the woodwork is "fumed" to a pleasing brown by a process known only to the elements which have achieved it.



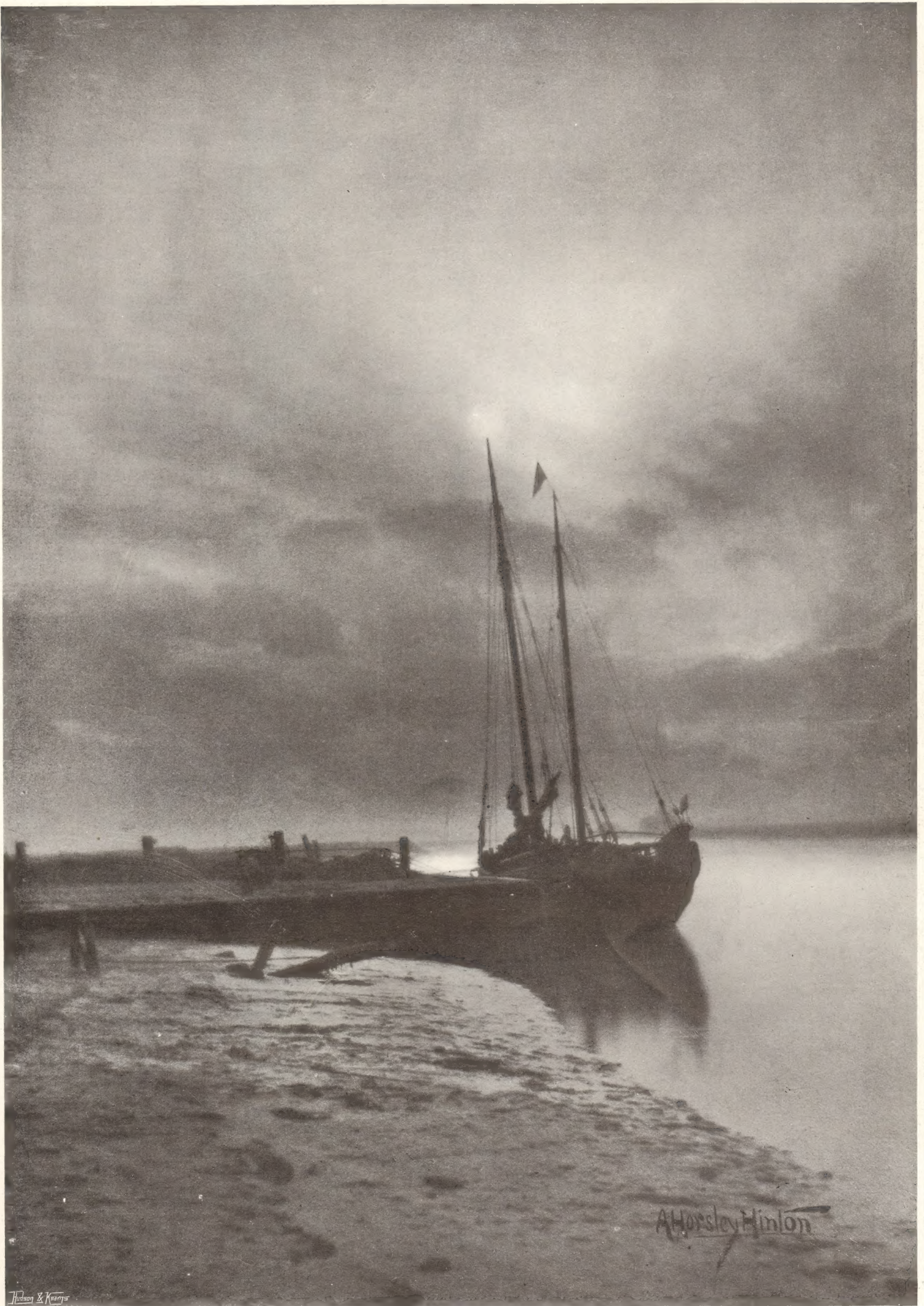
A. Horsley Hinton.

A DESERTED SHORE.

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let down when the general subsistence of land took place which caused the German Ocean to be formed, and the sea to come up them. Thus, the Orwell and the Stour have respectively been the making of Ipswich and Harwich, and are what these towns have in return made them, though neither commerce nor civilisation has sullied the rich vegetation and luxurious growth that fringes these much-used waterways.

But the more interesting rivers of Suffolk are those which, except to sportsman and naturalist, are least known, and flow through regions which, for the most part, have been overpassed

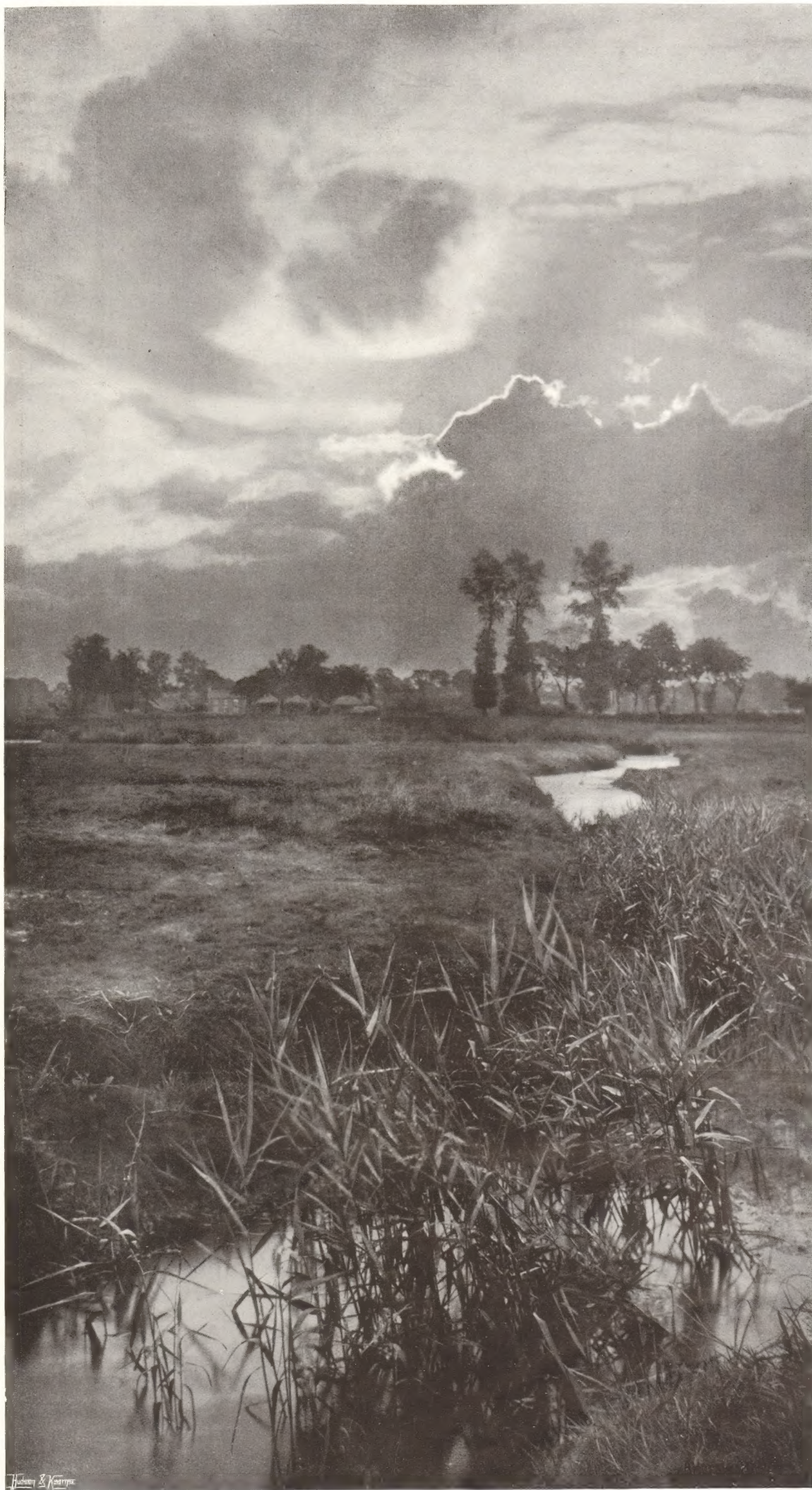


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THE LAST OF THE OLD BLYTHE FISHING FLEET.

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A TRIBUTARY STREAM.

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There is something strangely pathetic in this scene of desertion and decay, and fancy alone can repeople the empty landing-stages, now scarcely safe to stand upon, with the throng of those whose business was on the water or with them who go down to the sea in ships. Nor is the cause of the change far to

seek. The sea, whose ravages have converted Sole Bay, where English, French, and Dutch fleets in 1672 engaged in a great but mutually disastrous fight, into a straight piece of coast-line, and, earlier still, obliterated the walled town of Dunwich, has in its wilfulness piled up across the entrance to the estuary the wasted land which the river has brought down in the form of mud and sand, and only at high tide is there now sufficient depth to admit even a small boat.

Seated in a boat, deep down in the trough of the river at low tide, the derelict quays and all that remains of once sturdy piles loom strangely against the sky, festooned with slimy weed and studded with many-coloured shells. Here and there under the river wall is the remnant of a pile of shells, telling of flourishing oyster fisheries long since neglected, and on the far-reaching mud-flats wildfowl in abundance reap a plentiful harvest, and leave their footprints on a surface scarcely solid enough to support them, like creatures of prehistoric time. Stints, dunlin, pipits, and green plover, here and on the grass-covered banks, abound, with now and again a wild duck or heron, whilst authentic records tell of the visits of many a rarer and more stately bird—the peregrine, merlin, buzzard, osprey, and kestrel. But nearer the shore and in winter gulls from the icebound North, barnacle and brent geese, and more than one species of wild swan, have been met with.

Weird and strange is the scene, and full of surprises. Through a sudden break in the bank which seems to wall us in, a reed-choked stream opens, and adds its liquid tribute to the river winding westwards, and disappearing where three white poplars, shorn of their lower branches, show gracefully against the sunset sky, in which, like an aureole, hangs a golden-edged cloud. A swift, bright note of colour is this bursting in upon us as we float along the low-toned shores, a peep beyond the shadows which seem to hold us and deepen as we drift back in the failing daylight to the lonesome quay and the ferry.

Here, before turning your steps homeward, look back upon the strangely melancholy scene, now wrapped in mysterious twilight, and perhaps your most vivid memory may be the image of the last of the fishing fleet which once hailed from Walberswick, looking as timeworn as the dismantled

staging to which it is moored, gaunt and ghost-like, belonging to an age that is past; and the scarce audible lapping of the still waters and the hushed voices of the night murmur the "Requiem" of that which the sea once made and has reclaimed.

A. HORSLEY HINTON.

A SEA-BIRD NURSERY.

IN the far-away North, off the West Coast of Shetland, an island mountain rises sheer from the Atlantic. Year after year, age after age, the ocean's artillery has thundered incessantly at its western shore, and little by little has raised up against itself a mighty rampart of rock that seems impregnable against its stormiest assault. One watches the waves roll in one after the other with majestic grandeur, dash themselves seething and boiling against the cliff, only to be shivered into spray, and recoil, foaming, sulky, defeated. It appears a one-sided battle of the elements. The cliffs stand so immovable, so impassive, so unheeding of the fretting and fuming at their feet. The calm consciousness of limitless strength seems written on every feature of their weather-beaten, storm-swept face, and they force on the spectator the same sense of insignificance that he feels when he goes out on a clear night and looks thoughtfully and long into star-bespangled space. Man is so apt to set up his own allotted span of three-score years and ten as a standard of time, but here he is face to face with that which, in comparison, is eternity. Generation after generation as he counts them, the waves work patiently on, undermining a portion of the vast rampart bit by bit, till at last some furious storm reaps in one night the fruit of years of preparation. An avalanche of rock and earth falls with a crash that is heard above the shriek of the wind, and the waves rush up to the scene of their triumph with half-animate glee, carrying off, as they retire with that indescribably hungry, sucking roar, the *débris* to palliate their insatiable maw.

As the result of this ceaseless warfare the visitor to the island to-day finds a stretch of cliff scenery which is probably without equal in the United Kingdom. He ascends from the northern end, gaining headland after headland, each commanding a view of precipice grander than the last. From 300ft. he climbs to 600ft., from 600ft. to 800ft., where a large piece of rock juts out from the summit of the cliff. On this he takes his



A. J. R. Roberts.

KITTIWAKES.

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stand and looks back at the pathway up which he has just toiled. The cliffs where before he almost held his breath appear dwarfed from the eminence at which he now stands. He looks below and sees the sea directly beneath him, but at such a distance that its waves seem smoothed out into ripples and its surface smiles in the sunlight as the face of a lake. Any feeling of nervousness has long ago left him, for it matters little to the ordinary man whether he falls 300ft. or 800ft. to the rocks beneath. His mind has become, as it were, numbed by the impressiveness of the heights, and refuses to keep count of the last 100ft. or 200ft.; so that when he turns southward it is almost without surprise that he sees the grandest cliff of all, which rises with one small break more than 1,200ft.

It is from the sea, however, that the coast presents its most imposing spectacle. The eye can take in at one sweep the whole stretch of crag, whose fantastic outline seems to pierce the sky, and at times buries its head in the clouds. Sheer precipices, rugged battlements, alternate with steep grass-grown slopes, studded and broken by piles of rock or huge boulders—slopes where the grass keeps so sweet and green in summer that the wiry little sheep essay the descent and frequently pay the forfeit with their lives. Here and there, too, are slopes of more recent date. The grass has not yet concealed the wound rent in the earth by the passage of an avalanche, and a scar is drawn as by some Titan's finger right down the face of the cliff.

Such is the nursery of thousands of sea-birds with which this article deals, and their presence adds the one touch of wild life necessary to complete the scene. Ocean nomads as they are, embodying the restless, untamable spirit of the sea, over which they roam for nine months out of the twelve, the instinct of propagating their species alone can drive them to the land. At the end of May they come flocking to their old nesting quarters from every hand, and birdland's most impressive sight is seen in Nature's most impressive



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RAZORBILLS AND PUFFINS.

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GUILLEMOT AT HOME.

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setting. Puffins honeycomb the slopes with their burrows; guillemots line the ledges of the cliffs; razorbills discover and occupy the crannies; shags bring up their young in the holes afforded by the tumbled piles of huge boulders; fulmars sit patiently through a long period of incubation in whatever spot takes their fancy; Manx shearwaters and storm petrels burrow into the earth, brood on their white eggs throughout the day, and issue forth only as darkness falls; herring and lesser black-backed gulls build their nests where material or comfort dictates; while on the top of the cliffs the great skua reigns and tyrannises over them all.

The kittiwakes band together—a huge colony—in a place reserved apart, to which, indeed, they give their name, “Kittiwake’s Halle.” Here the cliff seems to have taken a step forward and planted a gigantic leg in the sea, forming an archway, through which the waves romp and play. The rock is full of ledges, wide enough to accommodate a nest, and from just beyond the reach of the waves to the summit the whole is white with the bodies of the sitting birds. There is no kittiwake nursery in Great Britain of such dimensions as that on the Swärtholm in Lapland, of whose inmates Faber wrote: “They hide the sun when they fly; they cover the skerries when they sit; they drown the thunder of the surf when they cry; they colour the rocks white where they breed.” Of no British colony could this be written without exaggeration, but the words convey a better idea of the facts than a more accurate description could do. Disturb those kittiwakes from their “halle,” and they sail out in a dense body, but, quickly recovering from their fright, they check themselves with

much beating of wings, and the pearly grey cloud of birds breaks up into a thousand shimmering units, whirling round and round, rising and falling like an eddy of snow-flakes, while from almost every throat comes an indignant scream, “kitti-wa-ake, kitti-wa-ake.”

It is practically impossible to obtain pictures of the birds here, for the cliff overhangs far too much to allow one to swing in on a rope, and the sea is seldom quiet enough to permit a boat a near approach. There are, however, many other rocky spots round our coast where kittiwakes may be photographed with more or less ease. Like most cliff-breeding birds, they are very reluctant to leave their eggs, and eye the intruder apparently with curiosity and surprise rather than fear. Long years of experience have taught them the danger of leaving their treasures unguarded, for their relatives, the larger gulls, have a decided taste for eggs, fresh or otherwise.

This fear of robbery is the capital upon which the sea-bird photographer must trade. For the rest, he must be as quiet as possible, avoid all sudden movements, and trust to fortune. Though birds themselves seem to have solved the problem of perpetual motion, the sight of it in others is the signal for alarm and flight. A colony of guillemots nesting on some broad bench of rock affords an excellent illustration. Each bird hugs its egg between its legs, half-buried in the feathers of the lower breast, many of which have been plucked out for its reception. That is the one fixed point of the bird. The rest of the body moves in such a way as to force the observer to reconstruct his ideas on its anatomy. The long neck, surmounted by a sleek, smooth head, with sharp-pointed beak, twists and turns with lightning-like rapidity as its owner regards you, first with one eye and then with the other.

The guillemot always appears to me rather a foolish bird, and often defeats Nature’s obvious attempt to take care of him. The egg is very pointed at the smaller end, and tends, therefore, to roll in a circle if disturbed. On a large, flat rock this is excellent, but the female will deposit her egg, apparently haphazard, in the most precarious of positions, sometimes in a little niche on some sloping shelf of rock, whence a puff of wind sends it rolling over the edge.

Everyone remarks on the extreme variability of the guillemot’s egg. No two, seemingly, are alike, and in half-an-hour one can find specimens of green, blue, cream, or white ground colour, blotched, spotted, smudged, streaked, or scribbled over with black or brown. All, however, can be recognised by their peculiar pear-like shape.

The accompanying illustration of the guillemot will give the reader a better idea of the bird than words; suffice it to say that the colouring on head, neck, and back is uniform drab brown. Among the hosts in this Northern nursery I saw many individuals which differed from their brethren, in that they had a thin white line round the eye and extending along the crease or furrow a short distance down the neck. Those ornithologists who consider this difference sufficient to establish it as a separate species, call the bird the ringed, or bridled, guillemot, but the majority regard it simply as a variety.

From the previous description of the cliffs the reader will have gathered that it is a dangerous place for a stranger to climb about upon. It only remains to be added that the rock is treacherous and crumbly, and that in places springs, gushing apparently from solid rock, make the grass below exceedingly slippery, and cover the flat stones with slime—veritable



A. J. R. Roberts.

ON THE LOOK-OUT.

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death-traps for the unwary. I was, therefore, very glad when one of my newly-made friends offered to pilot me along the face of the precipices and help me to photograph some of the inmates. From the first it was evident that he was a born cragsman, and knew the cliffs better than many people know their own gardens, while the easy swing of his supple body, as he stepped from ledge to ledge, betokened years of practice and unshaken confidence. We followed a sheep-track till we got to an ample grassy platform beneath an enormous overhanging wall of rock—a favourite shelter with the sheep. Following a sheep-track sounds easy enough to one who has pictures of well-fed English mutton in his mind, but the wiry animals in whose tracks we were stepping were more like mountain goats, and, though used to cliff work, I found some of the places none too easy to manage. My friend, however, had often accomplished the climb with a sheep on his back, for they sometimes get to ledges in their search for grass where, unless rescued, they must perforce remain till their supply of fodder fails and they become so weak that they fall off.

Our way next led across a waste of huge boulders, from which some shags flew at our approach. Usually cave, or, at least, cliff-breeding birds, they were here nesting in situations where one would have expected to find razorbills' eggs. It was early in July, and though some nests contained well-grown young ones, in others there were eggs, long, oval, and so coated with lime that one would never have guessed that the shell underneath was a beautiful, delicate green colour. At last we reached the slope where the puffin colony was situated. Hundreds of birds dotted the grass, each guarding its burrow, where, some 3ft. in, its mate was sitting on her white egg or covering a young one—a fluffy, black little creature, with a large white patch on the stomach. In all the puffin colonies I have visited there has been a corporate feeling as unmistakable, though not so highly developed, as that of a rookery. The males, as is right, are the bread-winners of the family, but at certain hours, usually twice a day, all the adults come forth to bask in the sun or take exercise on the wing. It is a kind of church parade, and the birds form a living circle whose diameter extends, perhaps, a quarter of a mile out to sea. In this the razorbills will often join, but, so far as my observation goes, never a guillemot. He goes to and from the sea with business-like directness, and, unlike the other species, knows how to hold his tongue, and does it. Gossip in a large colony, where each bird knows all his neighbour's family affairs, would be simply unbearable.

These times of activity in the puffin colony are the photographer's opportunity. Partially concealing himself and his camera (preferably on a very short tripod) among some large boulders, he focusses on the top of some exposed stone and waits, pneumatic release in hand. He must keep perfectly still, that is all, and yet hard enough when the strongest desire to burst into a fit of laughter has to be repressed. Birds are continually settling after a round or two of flight, and presently one alights on the boulder you have selected. He eyes you, somewhat suspiciously at first, but soon comes to regard you as part of the inevitable furniture of the place. Another drops down beside him, then another, and soon there are, perhaps, half-a-dozen. The number is only limited by the area of rock you have chosen. You wait your opportunity, always desiring "just one more," but one flies away instead. Then, for no apparent reason, two birds begin to fight. Each seizes the other with its curious beak, and they struggle and strain in deadly earnest. You become interested, and forget the camera entirely. Finally, they cease as suddenly as they began, or one bird or both tumble off the rock and end the combat. Their honour is



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BROODING.

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perfectly satisfied, and they are as ready to embrace as the Frenchmen in Mark Twain's duel. Perhaps both strut back to their perch with a ludicrous attempt to preserve their dignity. You seize the moment, and the picture is taken.

Despite the vast numbers, each bird seems to have retained its individuality. You have watched his expression, and feel you would recognise him again. You reverse the dark slide and wait once more. One or two birds from the sea join the group with fish whose heads and tails hang down disconsolately on either side of the beak. Some have three, others four, or even five, always held crosswise, and one begins to wonder how they catch them. From the cliff, perhaps, you can see them skimming along under the surface of the clear water, propelling themselves by vigorous beats

of the wing. Do they dart through a shoal of fish and catch them all at one swoop; or, if not, how do they hold those they have caught while they are snapping at others?

Then, again, one marvels at the boundless resources of the sea. Presuming that the colony numbers only 5,000 birds, and that each accounts for ten fish a day—a modest computation—more than 3,000,000 would be required during the nesting season. At the same time guillemots, razorbills, kittiwakes, and gulls are taking toll on them in even greater numbers, the vast majority of which are caught comparatively near the breeding site. Occasionally, however, the birds fly considerable distances for their food, and, having caught them, they set out for home in a bee-line with unerring instinct. I know one old salt who has frequently steered his ship in a thick fog according to their flight alone—on one occasion in contradiction to his binnacle, which he afterwards discovered was influenced by a quantity of iron cargo lying on the deck.

It was with reluctance that we left the puffins, but we were soon compensated by discovering a fulmar nesting in a most picturesque and photographable position. I stalked her carefully, moving the camera slowly along in front of me, and thoroughly ingratiating myself into her good books. I made several



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FULMAR ON NEST.

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exposures with trembling eagerness, and then thought I would photograph the egg *in situ*—I cannot say nest, for there was only a collection of small pebbles. I tried to frighten her off, but her only response was to squirt some yellow brown oil at me through her tubular nostrils. It fell short, however, for the greatest distance she seemed able to achieve was about four feet. I dropped a few small pebbles in front of her, with the same result—more oil. I took off one of the camera legs and began to stroke her on the back. She appeared gratified, and ceased to squirt oil. Finally, I had to lift her bodily off and throw her into the air, when



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YOUNG SHAG.

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she spread her wings and glided off with that wonderfully graceful flight for which they are justly famous. I took the photograph, and returned to my companion. Twenty years ago, he said, there were no fulmars on the island. They first came with a large whale that was washed ashore, and many stayed to nest. Since that time they have steadily increased, for it is seldom that anyone robs the sea-birds of their eggs. Hence on this island Nature's system of checks and balances may be seen working free from human interference. The fulmars will go on increasing up to a certain point. The numbers of puffins, guillemots, razorbills, etc., seem to be stationary. How then is the increase counteracted? Storms occurring at the time when the young are just taking to the water are no doubt responsible for the heaviest mortality; but there are causes at work in the nursery itself. We have already noticed the depredations of the larger gulls among the eggs, and in this work their efforts are ably supplemented by the ravens and carrion crows. One of my acquaintances told me that he had watched one of the former

birds engaged in this task. In three-quarters of an hour it stole nine eggs and hid them in the grass, apparently to be forgotten, for my informant added that he frequently found the eggs still untouched in winter.

We naturally expect that such a vast assemblage of birds should attract birds of prey. Nor are we disappointed, for a pair of peregrines bring up their young in safety every year on these inaccessible cliffs. Their ravages, however, can make no appreciable difference, for the very habits of the peregrine prevent it from becoming numerous in any locality. As soon as the young are able to take care of themselves, they are driven off

by their parents to find hunting grounds which they may claim as their own. At times, too, the great skua assumes the rôle of hawk. His normal diet is fish, which he obtains by plundering the gulls; but that his strong, hooked beak is capable of deadlier work is proved by the numerous corpses of puffins, picked to the bone, which strew his breeding haunts on the back of the cliffs. The other species, apparently, did not suit his palate, for I never found their remains.

And so, year after year, the struggle goes on. As regularly as the seasons the birds swarm to the nursery, where the same scenes of love-making, fighting, laying, brooding, and hatching are enacted, and the same fate overtakes many of the inmates, to the utter indifference of their neighbours. Regularly, too, at the end of August the young ones are taken down to the sea and taught to swim, dive, and fish. Gradually they travel farther and farther from land; the old, tree, nomadic life is resumed, and the nursery forgotten till the quickening impulses of spring once more throb in their veins.

A. J. R. ROBERTS.

IN THE GARDEN.

FIGHTING THE AMERICAN BLIGHT.

IT is so usual to find gardens in which the American blight is rampant that a few words about the best ways to destroy it may be welcome. We were looking at several espaliers in a suburban orchard recently, and not one was free from this destructive pest; the wood was cankered, and the life of the trees imperilled. The pest spreads with great rapidity, and always attacks the Apple. Pears, Plums, or other hardy fruits by the side of the Apple are never in danger, but to the latter it is no friend. Fortunately it may be easily detected, for a cotton-like substance envelops the insect, which has the appearance of fluffy wool or silk. It increases with marvellous rapidity, and Apple trees, whatever form they are grown in, should be carefully watched for any signs of American blight, especially if it is known that trees are infested with it in the near neighbourhood. A well-known authority on insect pests and friends writes: "The female usually chooses some crack or other inequality in the bark in which to bring up her family. As soon as the young begin to feed, which they do by thrusting their probosces into the bough, or shoot, and sucking out the sap, an unhealthy growth of the part results, the bark swells and forms knob-like projections or warts, and the flow of sap to other parts of the shoot is much interfered with, and the latter does not grow properly. Trees, both old and young, are attacked, and when it takes a firm hold of the young bush in particular death invariably ensues." When young trees suffer in this way it shows how thoroughly careless the gardener has been, for it is quite easy to reach the shoots and eradicate the pest. The writer has dealt with many trees of late years, and in winter has always carefully overhauled every branch and shoot, as, when the leaves are absent, remedies can be more easily applied. Armed with some methylated spirits of wine and a camel's-hair brush, a tour is made of the garden, and any suspicious spot dabbed with the preparation. It is necessary to wet the insects well, otherwise they may survive.

American Blight and Old Trees.—There is greater difficulty in dealing with old trees, as the cracks in the bark afford places for the insects to breed in, and it is not easy to dislodge them. The overhauling must be thorough, and to save any of the pests from escaping, lay sacks or cloths at the base of the tree, and well scrape the bark, the pieces falling on the cloth. Burn the contents at once, and be careful that nothing is blown away, as this means that the disease is conveyed to other quarters. For this reason it is wise to wet the bark with soapsuds before it is scraped, so as to prevent as much as possible any pieces escaping. When the rough bark has been removed, scrub the places where the insects have effected lodgment with a solution of paraffin emulsion, or a preparation composed of quassia extract, tobacco water, and soft soap. Where certain parts of the tree are infested and cannot be reached, resort must be had to syringing or spraying with the following powerful wash: Dissolve 1lb. of caustic soda in 8gal. of water,

and add $\frac{1}{2}$ lb. of carbonate of potash (pearlash); stir until the preparation is quite dissolved, add 1gal. of water, and then 10oz. of soft soap which has been dissolved in hot water. This mixture must not be used by the careless or inexperienced, and the man shows wisdom who uses old clothes. Another important point is to select a calm day, and only apply the mixture in the winter, otherwise leaves and buds would be severely injured, if not destroyed. The authority referred to writes that the American blight insect, when full grown, is sometimes a quarter of an inch in length. Some are winged, but the majority are not; they are of a slaty leaden black or dark brown colour, and have very long probosces, with which they draw off the juices of the trees. The white woolly substance with which their bodies are partially covered is principally secreted by the posterior half. The young very much resemble their mothers, except in size, and they are never winged.

RANDOM NOTES.

Sweet Peas for the Spring.—It will soon be time to think of ordering seeds for a summer display, and of late years great attention has been paid to the Sweet Pea, so much so that there is actually a society in existence devoted solely to it. In the annual report of this society, issued a short time ago, there is an interesting audit of varieties shown in competition, and this is, of course, an indication of the most popular sorts. The variety Miss Willmott was shown forty-four times; the next on the list is Navy Blue, followed by Lovely, The Hon. Mrs. Kenyon, Black Knight, Lady Grisell Hamilton, and Prince of Wales, all in the thirties. Such old friends as Apple Blossom and Boreatton are almost at the bottom of the list. In this report there is also a classification of Sweet Peas by Mr. Hugh Aldersey, Aldersey Hall, Chester, and it is as follows: *SELS.*—*White*, Dorothy Eckford, Sadie Burpee, Blanche Burpee, Emily Henderson. *Blush*, Duchess of Sutherland, Countess of Aberdeen. *Cream*, Mrs. Fitzgerald, Lottie Hutchins, Gracie Greenwood. *Yellow*, The Hon. Mrs. Kenyon, Queen Victoria, Lady M. Ormesby-Gore, Mrs. Eckford. *Pink*, Lovely, Hon. F. Bouverie, Prima Donna. *Rose*, Prince of Wales, Lord Rosebery, Mrs. Dugdale. *Bright Rose*, Lady Mary Currie, Miss Willmott, Chancellor. *Orange*, Gorgeous, Countess of Powis, Meteor. *Crimson*, King Edward VII., Salopian, Mars. *Cerise*, Coccinea. *Lavender*, Lady Grisell Hamilton, Countess of Radnor, Lady Nina Balfour. *Blue* (dark), Navy Blue, Captain of the Blues, Duke of Sutherland. *Blue* (light), Emily Eckford, Countess Cadogan. *Violet*, Duke of Westminster, Duke of Clarence. *Mauve*, Mrs. Walter Wright, Dorothy Tennant, Admiration. *Maroon*, Othello, Black Knight, Stanley. *Magenta*, George Gordon, Lord Kenyon, Othello. *BICOLORS.*—*Rose and White*, Triumph, Royal Rose, Little Dorrit. *Pink and Buff*, Agnes Johnston, Venus, Countess of Lathom. *Scarlet and Pink*, Prince Edward of York. *Rose and Buff*, Jeannie Gordon. *FLAKES* (with white ground).—*Red*, America, Aurora. *Blue*, Princess of Wales, Senator. *FANCIES.*—Duchess of Westminster. *PICOTEE.*—Maid of Honour, Golden

Gate, Lottie Eckford. This is as good a selection of Sweet Peas as it is possible to have, but those who require fewer varieties should rely upon the "Colour List" given in the report. The colours are already described, and, therefore, the names only will suffice: Salopian, Prince of Wales, Prima Donna, Gorgeous, Duchess of Sutherland, Lottie Eckford, America, Princess of Wales, Queen Victoria, Triumph, Navy Blue, Dorothy Tennant, Duke of Westminster, Othello, Lady Grisell Hamilton, Blanche Burpee, Lottie Hutchins, George Gordon, Captivator, and Coccinea.

The New Tufted Pansies.—No flower is more useful in town and country gardens than the Pansy, or Viola, as it is called. We intend planting some thousands this March, and have already ordered the varieties required to ensure getting strong tufts. All the following are included, and the list is given as a help to those who are not acquainted with the finest sorts in cultivation. The first are the *Rayless*—that is, flowers which are without the little streaks that radiate from the eye or centre, and are self or one colour or shade of it: Blanche, creamy white; White Beauty and Niobe, both



LARVA PROTECTED BY ITS HAIR COVERING.

white; Pembroke, canary yellow; Florizel, blush lilac; Rosea Pallida, blush rose; Devonshire Cream, cream colour; Ophelia, purple heliotrope; Mrs. E. A. Cade, golden yellow; Blue Tit, mauve-blue; Rose Noble, orange-yellow; Immortalité, blush lilac. *The Best Fancy and Margined Pansies:* Duchess of Fife, primrose, with blue edge; Goldfinch, deep yellow, edge purplish blue; Lark, white, with blue edge; Acme, purple-crimson; Mrs. C. F. Gordon, blotched with purple-violet and white; Stobhill Gem, lower petals violet, the upper ones bluish white; Cottage Maid, blotched with violet and white; Isa Fergusson, lower petals glossy black, and deep blue blotch on each petal; Butterfly, white, with deep rose edge; Mrs. Chichester, flaked with purple on a white ground; and Dove, creamy white, with edge of heliotrope. *The Best Self Rayed Pansies:* Ardwell Gem, sulphur yellow; Councillor W. Waters, crimson-purple; J. B. Riding, intense mauve; Kitty Bell, lavender and blush; Lizzie Paul, deep yellow; True Blue, imperial blue; William Niel, delicate rose; Maggie, rose pink; Archie Grant, indigo blue; Bullion, golden yellow; and Magnificent, mauve-blue. *The Miniature Pansies:* This is a charming section. The flowers are similar to large Violets, and their pretty form and fragrance have made them great favourites, especially for the rock garden, or for putting in between the stones in the paved garden, or on a wall. Six distinct varieties are Pigmy, rosy purple; Violetta, pure white; Gold Crest, golden yellow; Queen of the Year, china blue; Minnie Warren, lavender-blue; and Walter B. Child, white, with edge of lavender to the petals.

A National Potato Society.—Special societies increase and multiply, and the latest recruit is the one devoted to the homely Potato. An enthusiastic meeting took place recently at the Hotel Windsor to appoint officers and draw up a scheme for putting the society into practical operation. Much as we dislike these special societies—for where is the rage for them to end?—we think the Potato Society will do much good. The Potato is a national food, and of equal importance to peer and peasant, though perhaps the end in view might have been as easily accomplished by a conference and a yearly exhibition. Years ago, a Potato show took place at the Crystal Palace, and was always a most interesting and, strange though it may seem, a bright exhibition, for tubers, cleaned for the show and all of the highest excellence, are not ugly, especially when the varieties include those with coloured skin. Probably the disastrous failure of the Potato crop this year has called forth this special organisation, though whether it will add to the list of disease-resisting varieties is quite open to question. Firms like Sutton of Reading, and Carter of Holborn, have been raising for many years new and improved varieties, with a view to stamping out the disease, and with excellent results. Much nonsense has been written about absolutely disease-proof Potatoes, Northern Star among the number, but we have seen these tubers quite as diseased as other sorts. We presume the society will educate the cottagers, and not attempt to do the work the great growers are accomplishing in the most scientific fashion.

The Winter Jasmine.—Cheery and pleasant to both sight and smell is the Winter Jasmine, which will be found in books under the name of *Jasminum nudiflorum*. It is the one bright spot in the garden at present, and in a sheltered corner has escaped much of the frost which nips the opening buds, and, though not destroying entirely the expanded flower, dulls the warm yellow which we appreciate so greatly during the winter. This

is one of the hardiest and strongest of all the family. It quickly rambles over fence or arch, and may be planted even for the sake of the flowers for cutting. When the buds are on the point of expansion is the time to cut the shoots, and in a day or two the flowers open out quite fresh, and continue in beauty for some time. The fragrance, too, is very pleasant.

The Traveller's Joy Over Trees.—We have frequently pointed out the beauty of climbing Roses against old trees, but the Traveller's Joy (*Clematis Vitalba*) is suitable for this purpose also. It has a summer and a winter charm—in summer when the whole plant is enveloped in grey flowers of the sweetest fragrance, and in winter when the trails of a fluffy dull white seed float in the wind. A few trees in an old orchard we have in mind are planted in this way, and the effect in winter, when the bare branches permit of an open view, is weird and interesting. The trails of grey-white have a ghost-like beauty, and can be seen from a considerable distance.

The Winter Heliotrope.—This is the sweetest flower of winter. It is nothing to look at, but the bunch, so to say, of greyish bloom is very sweet, a nutty wholesome fragrance that is almost too strong in a sitting-room, but is pleasurable to sniff in the winter air. It is one of those plants that seem to grow anywhere, just the thing for some rough corner, or even under trees.

THE LIFE HISTORY OF BUTTERFLIES.

IN the study of any subject whatever it is of the utmost importance, if we would know it thoroughly, to commence at the beginning, and the natural sciences present no exception to this rule. So, in the study of animal life, in any of its branches, we should always endeavour to obtain at the outset as clear an idea as possible of the origin and growth of that life with which we are endeavouring to familiarise ourselves. It is an old and scientifically true statement that "all life is from an egg," and the butterflies, of which I am writing, are no exception to this inflexible law of Nature.

In form the eggs of the butterflies present no uniformity. Unlike the eggs of birds and other animals, which conform, more or less, generally to one shape, the minute receptacles of the butterfly embryos are of many and varied forms, and their surfaces in many instances strangely ornamented with ribs, depressions, and elevations. In colour also they vary, greenish or green white being the prevailing hues, while some species lay red eggs, others blue, and still others brown and yellow. At one end of the egg is a microscopical structure called a micropyle, which means little door, and through this the spermatozoa of the male enters, by which means the eggs are made fertile. Butterflies lay large numbers of eggs, sometimes singly, some-



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TWO CHRYSALIDES OF THE ADMIRAL.

times in small clusters, and often in large masses containing several hundred eggs. These are deposited upon the food-plant of the caterpillar, the female butterfly never making a mistake in the species of plant. The time required for the development of the embryo varies from a few days to several weeks, and in cases where the egg is laid in the late fall it will not hatch out until the following spring. Some butterflies are single-brooded, but many raise two, and even three, broods in a season. When its time for coming forth has arrived, the little caterpillar cuts its way through the side of the egg, often eating the empty shell after it has emerged.

Our insect has now entered upon what is known as the larval stage of its being, the second stage of its short life. In general characteristics all caterpillars are alike, but in outward appearances they differ greatly. The body is worm-like and covered with a loose, thin skin, and consists normally of thirteen rings or segments. The first segment constitutes the head, the next three correspond to the thorax, and the other nine to the abdomen of the perfect insect. On each of these segments, with the exception of the second, third, and last, there is a small oval opening, which is called a spiracle, and through which the caterpillar breathes. On each of the three segments which constitute the thorax are a pair of legs, known as the thoracic, or true legs. They are somewhat horny, and armed at the tip with a sharp claw, and they correspond to the six legs with which the butterfly is provided. The next segment has no legs, but on the sixth, seventh, eighth, and ninth, and on the last, are the prolegs, used by the caterpillars for clasping and holding themselves to their support, but, being unnecessary to the perfect insect, they are discarded during the process of transformation. The head is composed of a hard, chitinous material, and is nearly always very conspicuous, being generally large, hemispherical, conical, or bilobed. On the lower side are the mouth parts, consisting of the upper and under lip, the mandibles, the antennæ, the maxillæ, and two sets of palpi. On either side, above the mandibles, are the eyes, simple, round, shining prominences, which are frequently arranged in series, and often require the aid of a magnifying-glass to be clearly distinguished. The palpi, or

organs of touch, are connected with the maxillæ and underlip, and by means of them the caterpillar aids itself in feeding, and also appears to guide itself with them.

The bodies of caterpillars are in many instances fearfully and wonderfully ornamented with horny projections, spines, and eminences, and the colouration is as remarkable in its way. This is all, doubtless,



LARVÆ OF THE HAWK MOTH.

is always ready to supply them with a new suit. This process is called moulting. It takes place at regular intervals, ordinarily not more than five, and frequently only four, times during the life of the caterpillar. At each period the insect ceases feeding, attaches itself firmly to some support, and remains quiet for a time. Eventually the skin splits from the head to the last segment along the median line of the back, and the caterpillar crawls forth clad in his new suit.

In their social habits, as in everything else, these insects vary greatly. Most of them are solitary, but others are gregarious, living in colonies which are often of considerable size. These latter frequently build nests of woven silk among

the branches of the trees upon which they feed, and these serve in part to protect them from their enemies as well as the weather. Again, the caterpillars of some butterflies are wood-boring, and construct tunnels in the pith or the soft layers of growing plants.

The duration of the larval state varies greatly in different species. In some cases it covers only a period of a few weeks, in others, several months elapse between the hatching of the egg and the change to the chrysalis, while some even hibernate and live over several years, in which cases the intervals between moults are necessarily long.

The third, or pupal, stage in the life of a lepidopterous insect is, apparently, a period of inactivity, although, in reality, the greatest transformation of all is being carried out, although we can

part of Nature's scheme for protection, for caterpillars are wonderful, though unconscious, mimics, often so closely resembling the leaf or twig upon which they are resting as to be almost invisible. Most are greenish, some brown, and many gaily coloured; but even the colouring of these latter will almost invariably be found to bear some relation to the colour of the objects upon which they are wont to rest. In addition to being thus protected by their colours, some caterpillars are further provided with means of defence, as in the instance of the larvæ of the Swallow-tail butterflies, which are provided with a forked organ which can be protruded at the will of the insect from an opening at the back of the head, and which, when thus protruded, emits a powerful and disagreeable odour. The principal enemy of the caterpillar, however, is the ichneumon fly. This fly, which in some species is small, in others quite large, lays its eggs in the bodies of the caterpillars. These eggs hatch in a short time, and the grub feeds upon the fatty portions of the caterpillar's body.

As caterpillars grow very rapidly, they from time to time outgrow their clothing, as do growing boys, but Mother Nature

is always ready to supply them with a new suit. This process is called moulting. It takes place at regular intervals, ordinarily not more than five, and frequently only four, times during the life of the caterpillar. At each period the insect ceases feeding, attaches itself firmly to some support, and remains quiet for a time. Eventually the skin splits from the head to the last

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JUST OUT OF THE COCOON.



ADMIRAL (MALE AND FEMALE).



MILKWEED BUTTERFLY.

case of the papilionidæ, and in this position they are transformed into chrysalides. The forms are varied, though there is a general resemblance among the families. In colouring they are mostly obscure browns and greys, although a few are quite brilliant, as in the case of the common Milkweed butterfly, which is a bright green ornamented with golden spots. A great many butterflies remain in this third, or pupal, stage only a few weeks—these are those which raise several broods in a season; but many form the chrysalis in the fall, and remain in this state all winter, emerging as the perfect insect in the spring. Unlike the moths, the butterflies spin no cocoons, the chrysalides hanging unprotected. When the time for the emerging of the imago, or perfect insect, arrives the shell of the chrysalis splits in such a manner as to allow the free egress of the butterfly. At this time it can hardly be termed a perfect insect, for to the uninitiated it certainly appears to be very imperfect, almost all body and practically no wings, these being small, flaccid, and very much crumpled. But hanging suspended from the plant or other projection from which its chrysalis hung, the insect remains for several hours slowly fanning these wings until they have become fully expanded and attained their normal proportions and strength. In the meantime the body, being robbed of its liquid contents to supply the wings, has shortened considerably, and the time has at length arrived when the insect, which until now has been but a crawling, lowly thing, can soar away and take its true place as one of the workers in Nature's garden, and one of the most dainty and beautiful of all her creations. The anatomy of a butterfly is complex, and I do not think it at all necessary at this time, nor is there space in this article, to adequately describe it; in fact, such a description would require quite a lengthy article of its own, and when done would be of interest only to those who intend making a specific and thorough study of butterfly life. The wings, the most wonderful part of a wonderful anatomy, I will



HUNTER'S BUTTERFLY.

see nothing but the results. The caterpillars, when full grown, attach themselves to the under-surface of a leaf, a stone, a branch, or other projecting surface; some by means of a button of silk, from which they hang suspended, others by the button of silk and an additional girdle, which passes round the middle of the chrysalid, as in the

describe, however, in part. These "consist of a framework of horny tubes, which are, in reality, double, the inner tube being filled with air, the outer tube with blood, which circulates most freely during the time that the insect is undergoing the process of development after emergence from the chrysalis. These horny tubes support a broad membrane, which is clothed in most species upon both sides with flattened scales; these are attached to the membrane in such a way that they overlap one another like the shingles on a roof." These scales are often most beautiful in form and colouring, especially when examined under a microscope, and are one of the means of determining species. They are often arranged in peculiar tufts and bunches. The shape of the wings in different species, while conforming to one general form, varies considerably in outline. They are generally held erect

when the insect is at rest, and the under-sides are often so coloured as to exactly imitate the object upon which the insect is resting, some having the exact shape and colouring of leaves. This is another of Nature's schemes for protecting her children from their natural enemies. Albinism, or the occurrence of light-coloured specimens, is not uncommon among butterflies, while melanism, or a tendency to dark-coloured or black forms, is frequently to be met with.

Butterflies are to be found everywhere that plant life exists suitable for their nourishment. Even in the brief summers of the Arctic Circle there are a few that



A HAWK MOTH.

pass their life; but pre-eminently they are children of warmth and sunlight, and therefore in the tropical countries they are found in the greatest profusion. On the continent of Europe about 450 species are found, while in the United States there are

about 700 species; but while the number of species in the tropics is almost innumerable, those of the temperate zone make up for the lack of species by the vast numbers of specimens that occur in certain species. An example of this is found in the common Milkweed butterfly (*Antiope plexippus*), swarms of which have frequently been seen containing many thousand individuals.



L. W. Brownell.

THE BLACK SWALLOW-TAIL

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"Pauci læta arva tenemus."

WHILE the spirit of kindness and sympathy has ever been the same among good men and good women of every age, the forms and the expression which it takes differ somewhat as the world grows older and life more complex. The quiet precinct of St. Cross compels an instant and involuntary reverence for the founder, no less wise than kind, of so complete and so enduring a contribution to the happiness and solace of deserving age. The brethren of the Charterhouse still recall the benefaction of Sir Thomas Sutton. But in the beautiful house and true "home" illustrated in these pages, human kindness seems to have advanced swiftly with the river of Time, and leaving behind it the form, while retaining all the spirit of mediæval sympathy and kindness, has created a new and striking instance of conformity to the precept, "Do unto others as thou wouldst they should do unto thee."

The beautiful house, beautiful both within and without, built by one of the leaders in the domestic architecture of the day, set

round with the loveliest garden and flowers which modern taste in design and planting could secure, is maintained by its owner and builder as a Home of Rest for Ladies. It stands close to his own house, is equipped and furnished with like comfort and care, and to it come, at his invitation, those ladies to whom the strain of work or want of private means renders such a visit in such surroundings a source of rest and refreshment for mind and body—nurses from the hospitals, ladies of small means who could not otherwise afford a holiday, East End workers exhausted by care for others. Everyone knows their strenuous and self-sacrificing lives, but how few have seen a practical way to make any recognition or return! These are the guests invited to "Goddards." Their hostess is a lady who lives permanently in the home, and undertakes the complete management, so that the visitors need not "take thought" either for the day, or for the morrow, and may enjoy in uninterrupted leisure their brief but welcome interval of quiet, comfort, and repose. The inmates come as guests, and are treated as guests. They stay for a fortnight or three weeks, as





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THE GARDEN COURT.

"COUNTRY LIFE."

they please and desire, and if the home is not occupied by them, the owner uses it as an adjunct to his house.

The "Home" stands on Abinger Common, which runs for a couple of miles south of Leith Hill, in Surrey. The air sweeps up from the weald to this typical Surrey site over the 900ft. of elevation of the hill, while the house itself is nearly 700ft. above the sea. The land was part of the copyhold of the ancient manor of the Evelyns of Wotton, from whose dependents it was purchased by its present owner. The ancient name of the property was "Goddards," and that name it still retains.

It may be asked what it is in this home which marks it as an advance in thought and sympathy beyond the ideas, however benevolent, of mediævalism. Some of the points may be set down, in case they are not obvious from the illustrations of the house. Ancient "homes," whether for men or women, plain folk or gentle-folk, from "God's House" at Ewelme to St. Cross, were obviously built for the particular purpose

of housing poorer brothers or sisters in a building where, as a rule, the rooms are very small, almost like monastic cells. With the exception of the dining-hall, there is no common meeting-place, and there is none of the charm of a good house, though much to admire and commend. They were built almost invariably on this principle, because the guests are permanent inmates. At "Goddards" the visitors, who only come and go as guests for a short period, are provided in that period with a

beautiful home, where they have around them everything that can stimulate pleasing fancies. They have a bright social life there; readings, games, and music in the evening, and, perhaps best of all, a lovely garden. Thus they are never at a loss for an occupation, and the hours gliding by bring them not only renewed strength but solace and comfort.

For ladies there is no such luxury as that of beautiful flowers; and there the flowers are, in all their charm, for their enjoyment. In the mediæval "homes" which survive, to the



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THE GARDENER'S COTTAGE.

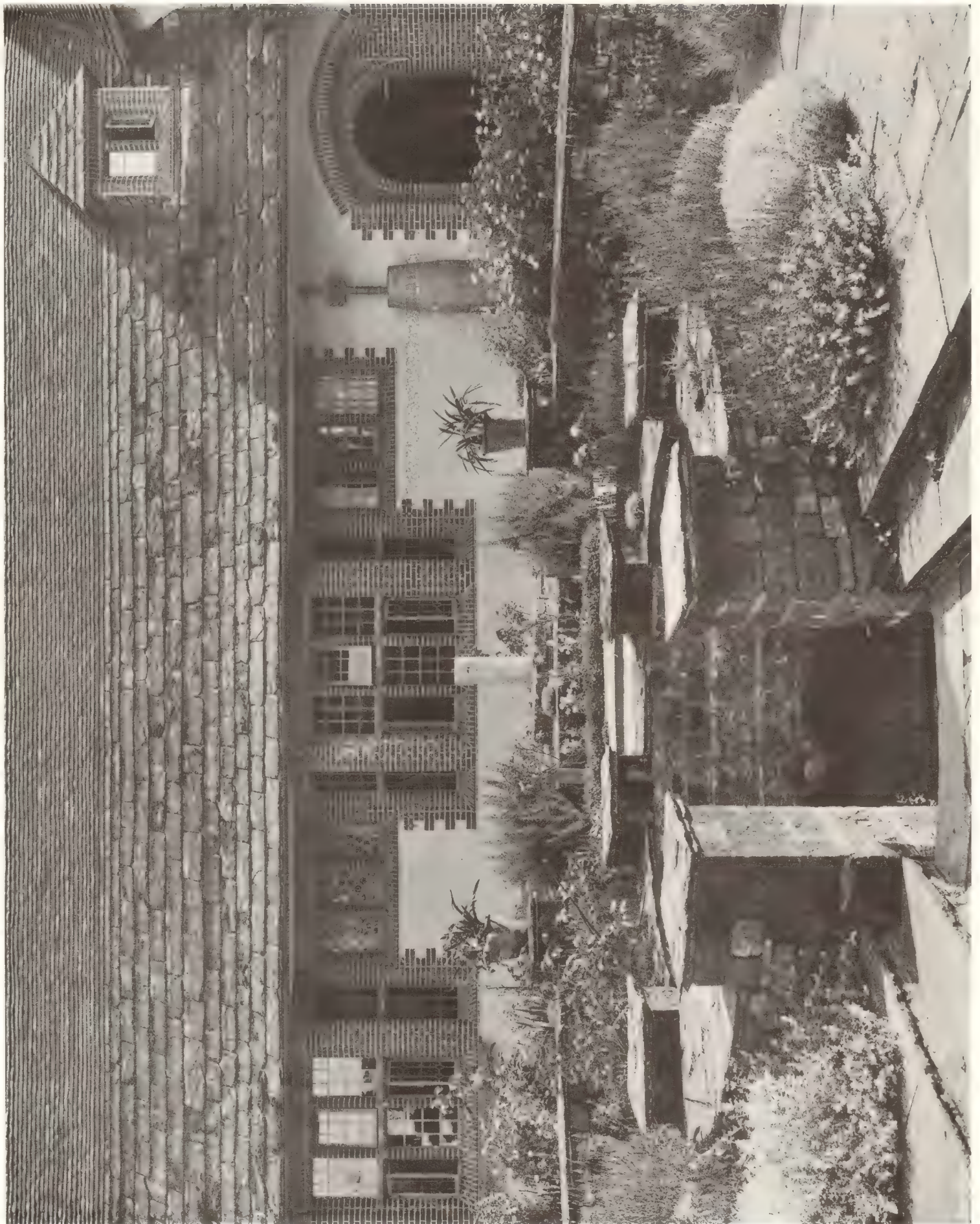
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THE DIPPING WELL.

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THE SOUTH-WEST CORNER.

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THE SKITTLE ALLEY WALK.

"COUNTRY LIFE."

eternal honour of their founders, no great detail and interest could, as a rule, be afforded in their decoration and structure. Their beauty lies generally in broad effects of general structure. At "Goddards" the house is full of detail and of matters which cannot fail to interest the guests. It was built from designs by Mr. E. L. Lutyens, and is a very favourable example of the architect's work, both inside and out. What, for example, could be more charming than the southern front, with its fine roof, chimneys, brick-bordered windows and doors, and the court, with its curiously-laid pavements, its pool, and flowering plants like sea-anemones lying on a rock? The dining-hall, or "common room," with its fine timber-work, put together and pegged in the old way, is a most restful meeting-place within; vistas of terrace, and paths, and pine woods near at hand. For wet days there is a skittle alley adjoining the house itself, where in the winter the villagers are allowed to come in the evenings and play for "horses," while a pipe and a glass of beer are not forbidden. The fine carvings used as ornaments on the walls of the alley are dated 1707. They came from the pediments of the gables of the old Wandsworth Manor House, now pulled

down, and are supposed to be the work or design of Grinling Gibbons.

It will be seen that "Goddards" is a rambling house. Adjoining the bowling alley on the left of the entrance is an old-fashioned washhouse. Thence a passage to an isolated little parlour giving on the garden. Over these are bedrooms, which are joined to the bedrooms of the upper floor in the other wing by a long low room called the "loft," and used for indoor games in wet weather. Beside the large "common room" are a dining-room and parlour, and all are furnished with interesting old pieces from Surrey or Sussex, while some of the old-fashioned ornaments were contributed by country people

around out of their own houses. Thus within and without are interest and beauty; within, the beauty of art and construction; without, the mingling of Nature with Art in the garden, and Nature alone in woods and commons and hills for mental pleasure and the soul's ease, to use the old phrase of ancient benefactors.

There is one more thing which should not be left unsaid. Ancient founders often dedicated their work to a saint, and that saint was not infrequently a



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THROUGH THE SKITTLE ALLEY.

"COUNTRY LIFE,"

child-saint. The founder of "God-dards," who bought the land and built this home, gave it to his only child. It is hers, and those who enjoy it are his little daughter's guests.

MODERN CANADA.

DESPITE some drawbacks, Mr. Bradley's book, "Canada in the Twentieth Century" (Constable), may be recommended with every confidence as being, on the whole, the most truthful and the most valuable picture of Canadian life and its environment that has yet been published in the English tongue. In writing the foregoing sentence I have deliberately excluded from my mind all the numerous passages which deal with Canadian views upon questions of Imperial politics, with tariff questions, and with allegations of corrupt practices among Canadian politicians. With the first, to speak frankly, I do not think Mr. Bradley is man enough to deal; on the second there is no need to touch; of the third, I have appropriated for my own the privately-spoken views of a wise Englishman who has seen much

of colonial life. It is, unhappily, only too true that there is a great deal of squalid and personal corruption in Colonial politics, not only in Canada, but in Australia and New Zealand. For that matter, there is not a little of the same poison in the political life of the United States, and there is no country in the world in which political society is marked by the honesty which prevails at Westminster. But, of the countries named, Canada is beyond question the least impure; and there is no need to despair of any of them,

since it is plain that corruption and material prosperity may go hand in hand (not that honesty would not pay better), and that purity may come with time. So it may well be that, even though Canadian politics may not be stainless, Canada is a place offering to the young Briton in search of a career many opportunities which cannot possibly be presented in our own well-beloved but pitifully overcrowded islands. It is from this point of view that Mr. Bradley's book has exceptional merits. It tells us what Canada and the Canadians are, and what are the chances for the young Englishman in every walk of life and in



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"COUNTRY LIFE."

THE COMMON ROOM.

every province. Let us see what these are, observing, by way of preliminary, that Mr. Bradley has been a frequent visitor to Canada during most of his life, that he has spent "a dozen or so earlier years" in agricultural pursuits to the south of the Canadian border, and that in the summer of last year he devoted seven months to a Canadian tour, undertaken for the purposes of this work. Let us also direct our attention principally to the life which may be lived on the land, as distinguished from the cities, on the simple ground that life on the land is likely to be more interesting than city life to the readers of this journal.

The province of Quebec is in many ways delightful, and the "habitant" is picturesque; but the British emigrant, with or without capital, is not likely to settle there. Nor can Ontario be recommended, save as a school; and even if it be chosen as a school, the parent or guardian of the pupil will be well-advised to exercise some personal care in the choice of a tutor. The Ontario farmer is, for the most part, in a small way of business; he has, at least, as hard a struggle on his freehold as the English farmer under a good landlord; and he is naturally apt in many cases to regard the "tenderfoot" pupil as a gratuitous hewer of wood and drawer of water. Still, Mr. Bradley does recommend, with faint praise, it is true, a spell of training, on the Sandford and Merton principle, on a carefully-selected farm in Ontario. But that is because Mr. Bradley has an unreasonable prejudice against attempts at training young men in Great Britain for colonial life. "We all know what learning farming too often means in England, while agricultural colleges, whatever use they may be to such embryo country gentlemen, land agents, or large farmers as elect to take them seriously, are not calculated to equip the youth whose future is a Manitoban farm or an Alberta ranch even if he is willing to be thus equipped." . . . "You cannot reproduce Canadian life and atmosphere in England; the idea is almost ludicrous to anyone who knows both countries in an agricultural sense." Of course it is; but there is such a thing as failing to see both sides of a question; and I am inclined to suspect that Mr. Bradley, much as he knows of Canada, is not thoroughly familiar with the course of instruction at some of our despised agricultural colleges. In spite of the contempt of the "practical man," which is another way of describing him who, in Canada and England alike, scorns scientific theory even when it is demonstrated by results, the emigrant of the better class who has been instructed in the anatomy of beasts and in elementary veterinary knowledge, in the productive powers of varying soils, in the effects of manures, in the use of tools and implements, in the riding and management of horses, and, above all, in keeping business-like accounts, has learned as much as, or more than, he is likely to acquire on the best Ontario farm. One thing he will learn, or his friends will learn, at any rate, and perhaps to their cost, and that is whether he possesses strength of character. Without that there is no use in sending him to Canada, or anywhere else, unless, indeed, it be desired simply to put him away out of sight—and that, it is to be feared, is too often the unexpressed motive. "I will give him a chance in Canada," says despairing paterfamilias of his scapegrace son. What he really wishes is to be out of sight of the progressive ruin of young Hopeless. For such a man Canada has no use. It is a strenuous and energetic country, where the farmer works hard and intelligently, and the city man despises the rustic; a country in which the weak and the vicious go to the wall without



Copyright THE COMMON ROOM ENTRANCE. "C.L."

exciting any pity, in which strength of character is at a premium, in which it is just as easy for a young man to go wrong as in England, and perhaps easier. From this, it seems to me, the inference is that he should be tried before leaving England, not after; and if he turns out a failure upon trial in England, where he has consideration for the feelings of the good folks at home to restrain him, there is precious little use in sending him out to a country which, from painful experience in the past, is too prone to suspect that the "tenderfoot" has come to Canada because his room is preferred to his company at home.

For the strong in character and in body, however, there is a fair field indeed on the wheat-prairie of Manitoba; in the struggle with Nature, in the form of trees, in that New Ontario which is being wrested from the wilderness at a time when timber (and wood-pulp) is growing in value; on the cattle ranches of Alberta; or in the mixed and semi-horticultural farming of British Columbia. Manitoba, despite the failures of numerous "settlements" of the philanthropic and public-school type, organised by gentlemen who realised the conditions of prairie farming as little as their own responsibility, has a grand future. Its virgin soil, still fairly cheap, and treated with no stimulant but occasionally fallowed in summer, continues to yield crops of unrivalled quality and in better quantity than any land in the United States, although the yield might raise the scorn of an English farmer. Twenty bushels to the acre is a good crop, and Mr. Bradley remembers sixty-four bushels in the Lothians. But think for the moment of the rent and taxes which the British farmer has to pay, equivalent often in a single year to the five to ten dollars an acre which the Canadian farmer has paid for his section, or more often for his half-section (320 acres), near a trans-continental railway. This is the country in which a hard-working and shrewd man, even if he starts with but little knowledge of farming, may make a sufficient living, and even a modest fortune. Of such Mr. Bradley gives a few examples, and I may,



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FROM ABINGER COMMON.

"C.L."

perhaps, venture to add another, that of a man whom I saw thrashing his abundant corn, and burning his scanty straw in approved Canadian fashion, during the harvest of 1901 at Poplar Point. He had been an elementary schoolmaster at Whippingham in the Isle of Wight, with a large family, eleven years before. In the brief interval he had found health, strength, and sustenance for himself and his family, and had become a substantial proprietor on the Canadian prairie. He had a good house and homestead, horses for ploughing and for harvest, milch kine for the use of the house—in a word, a home. That is the country for the industrious and for the acute, for what has been done by this schoolmaster can be done by others also, in the same way, and in no other way. That is the land to which acute farmers from the States, many of them descendants of Canadians who crossed the Border years ago in distress, are

coming with their capital and their energy, to the alarm of the short-sighted, and Mr. Bradley describes it well, sensibly, and sympathetically. Let me end with a willing acknowledgment that, taken as a whole, the book is as readable as it is sound, and that it contains not a few passages of singular beauty and nobility. It covers far more ground than it has been possible to glance at here. It treats of the social features of the various provinces, of the sports and the pastimes of men and women, of the beauty of the country, and of its history also. In a word, it portrays Canada and the Canadians more thoroughly and more vividly than they have been portrayed before. In fact, if it goes into a second edition, as it ought to go, and if Mr. Bradley spends a fortnight in polishing it, and in verifying or expunging his quotations, it will be nearly a perfect book of its kind.

CYGNUS.

NORWAY ONCE MORE.

EVEN a good sailor is hardly likely to enjoy tossing and tumbling over the North Sea in a crowded steamer in August, and to a bad one it is purgatory indeed. I suppose that I ought not to be placed in either category. I do not dread the sea, and it takes a good deal to disturb my equanimity, but I have been unfortunate on the last two occasions of my crossing from Hull to Christiansund. It was some consolation to me to hear that the captain of the vessel also succumbed on both occasions; the fact was such a salve to my *amour propre* that I should think that lines of steamers desiring to be popular would be well advised not to select mariners of too hardy a type to command their vessels. But this by the way. All troubles come to an end some time, even a passage across the North Sea, and the delights of Scandinavia gain an added zest from the experience just over, as the transformation scene at a Christmas pantomime looks all the more brilliant because it is immediately preceded by an intensely gloomy "flat" in a gnome's grotto or a brigand's cave.

Our passage last August had not merely been delayed by head winds and adverse tides, but we had waited to discharge an immense quantity of machinery at Aalsund, and it was past midnight on Sunday before we reached the pier at Christiansund. It was raining hard, of course, but neither the lateness of the hour nor the inclemency of the weather prevented the inhabitants from assembling in crowds to greet our arrival. As I paddled along the dripping wharf to the small steamer which was waiting to convey us to our destination, I wondered that an attraction so wanting in novelty had kept so many out of



OUR HOUSE IN NORWAY.



OLE AND HIS CART.

their beds. I had hoped that the Custom House officers would be as anxious to get rid of us as we were to get on; but I reckoned without my host, for although all our heavy baggage and stores had gone on a week before, every portmanteau and box was opened and rummaged, and we were not able to make a start for a full hour. I cannot altogether blame the officials, as they had not long before detected a passenger, an Englishman, attempting to smuggle a quantity of dutiable articles as personal luggage, and we were suffering under the suspicion naturally raised by his delinquencies. I snatched a few short spells of sleep on a bench in the little deck house, with a hand-bag for a pillow, but as I approached my destination and recognised the familiar hills and cataracts, I became too excited to keep under cover, in spite of the heavy rain which was still falling.

At 5 a.m. we arrived at the little pier at the head of the fiord, and there were all our old friends waiting to receive us, Ole and Peter, our fishermen, and one or two farmers and their sons who had come down with carts for the baggage and stolkjaerres, or double carriages, five in number, for our numerous party. They had been waiting for us many hours in the down-pour, but it did not seem to have damped their spirits or to have chilled the heartiness of their welcome. This time there was no unnecessary delay, and we drove off along the banks of the river, arriving home at about 6 a.m. After a cup of hot coffee I went to bed, ordering our breakfast to be ready at 9.30. The younger members of the family scorned such luxurious indolence, and dashed off at once to get hold of their fishing-rods and hasten to the river. When I came down after my short rest, Geoffrey had scored first blood with a small but beautifully clean grilse. Although in my case prudence had gained a temporary victory over impatience, I, too, was eager for the fray, and was quite ready for a start directly after a hasty meal. When I got to the door Ole was harnessing his pony to the new car, of which he was so proud, and drew my particular attention to a pair of blue cotton reins, an unusual refinement, as plain ropes are generally considered good enough to drive with in Norway. The rain had obligingly cleared off; a few clouds were hanging about the mountains, and the river looked perfect to a fisherman's eye as we trotted along the road. After crossing the iron suspension bridge just below the house we turned up through the fir wood, in the middle of which stands the primitive post office. On emerging from the trees we met the river on our left, just where

"Pipe" Pool (pronounced "Pipa") pours its waters over a succession of rapids into Stor Pool, about the best bit of water in the river for big fish. Pipe Pool derives its name not from any neighbouring farm or home-stead, but from the never-forgotten circumstance that a certain English nobleman who rented the water some twenty years ago lost his pipe there. The road here is very narrow, and the face of the mountain on our right is so precipitous that a board with a warning



THE HEAD OF STOR POOL.

inscription cautions the traveller to pass on quickly for fear of avalanches or falling stones. The scarred sides of the precipice and great boulders on each side of the road testify that the warning is not without solid foundation of danger to justify it, and "tumbled fragments of the hills" have half filled up the pool itself, and rendered it no longer of much account as a salmon cast, although one is generally urged to try it on the strength of its former reputation. A Norwegian pony, however, takes such risks very stolidly, and cannot be urged to any very headlong speed by such bogies as avalanches or rock settlements. Next we pass Kongen Pool, where one or two big fish can be clearly seen lying in the still backwater just above the rapids. Above this the valley widens, and the stream takes a broad sweep to the left, leaving the road to go straight on, through a small tract of cultivated land. Fladvå Farm, my destination is in sight not far off, and we soon turn through the gate and stop. I snatch my rod and gaff and hasten down to the river, leaving Ole to follow as soon as he has unharnessed and turned out the pony—no very long operation with the simple and convenient native harness.

The first cast of the year! A fisherman will understand and sympathise with my feelings. London and its worries, only four days off in reality, seem recollections of another age and another world. In front of me is the pool, and just behind me is the great rock, almost as big as a house, beside which I had so often lunched while resting the cast. There is the eddy where I hooked and lost the last fish of the season two years before. How delightful is the feeling of the first rush of the strong water against my waders as I step into the river from the shelving bank of shingle, and begin to let out line and cast my Jock Scott into the deep strong stream just below the white water breaking over a great submerged rock.

When I had waded down to the bottom of the pool I had not risen a fish; but what did it matter? The first run of the line through the rings as one lets it out in successive lengths, the corncrake melody of the reel, the fall of the cast on the water straight and true, showing that the right (and left) hand has not forgotten its cunning—all these after a twelvemonth's fast are delights enough without the breathless excitement of the sudden tightening of the line as

a fish takes a fly and the impetuous rush of a big salmon. I do not mention in this catalogue of delights the sight of the rising fish coming at the fly, as in this river it is the rarest possible thing to see the salmon at all before the sudden check and pull notifies to you that you have hooked him. The rise of a trout is more perceptible and obvious, followed, as it usually is, by a short and desperate flurry on the surface before the point of the rod can be got upright and you

find yourself on terms with your fish. A sea-trout which escapes usually does so either during the first or the last ten seconds of the struggle. The final part of this statement sounds like an Irish bull or a truism, but my meaning, perhaps imperfectly expressed, is within ten seconds of the time when, unless the hold gave, he would be safe in the landing-net. It is seldom that you lose one while he is running and fairly under water, except from some defect of the cast or hook.

By this time Ole had joined me with the boat, and I determined to get on board and try another fly over the pool, as the water was high, and there were some likely places too far off to be reached by wading, and the whole pool was well worth another try. But we had hardly started, when the boatman's sharp eye caught sight of something close to the shingle we had just left, and he pointed it out to me—a salmon, and a large one, too, lying on its side apparently dead. It seemed to me most remarkable that I should not have observed it before, as it was

close to the very spot from which I waded out to fish; but probably the reason I had missed seeing it was the same which prevented "Tilburina" in the *Critic* from seeing the British fleet—it was not then in sight. We pushed back the boat, and Ole got out to investigate, but when he got hold of the fish it gave a flounder and made an effort to escape into the deep water, but it was too sick to be able to swim away, and a knock on the head with a stone speedily put it out of its misery. It was a fine salmon, weighing a good 23lb. We examined it and found a wound in its head near the eye and a mark in the upper jaw, and conjectured that, although it had perished so ingloriously, its wounds were honourable scars, caused by a desperate struggle with some brother angler, who had lost it almost in the moment of victory. The mark in its mouth was no doubt the mark of a hook; the wound near the eye had almost certainly been made by the point of a gaff.

It was very singular that the dying fish should have been stranded at our feet in such a fashion, but it is perhaps even more remarkable that I should, two days afterwards, have met the man who lost the fish, heard from his lips all the circumstances of the struggle, and been able to tell him that the escape was only temporary. On the Wednesday following, my



BACK AT THE OLD HAUNTS.

landlord's brother-in-law, who had moved off with him just before I came, to his other place in the high Fjeld, called on me on his way down to the steamer which was to take him to England.

Of course, after our first greetings our conversation turned on sport, and we began to exchange experiences. "Ah," he said with a sigh, "you have not heard of the misfortune I had last Friday. As I was on my way up, I met the lessee of the Musjerd fishings, an old friend, coming down to catch his steamer, and he gave me the run of his water for the next day, as his term did not expire till then. I hooked a big fish in the top pool, had it on for no less than two hours, and, after a desperate fight in a very strong stream, succeeded in bringing it to the gaff. My fisherman gaffed it successfully, and was holding it above the land, when it fell off and rolled back again down into the water. Was there ever such a slip between the cup and the lip?"

Here was the whole story complete: On Friday afternoon, about three o'clock, the fish had escaped, and from that time till about noon on Monday had been gradually forced down stream over numberless rapids through ten miles of water, and stranded dying, at the very feet of the occupant of the house from which its captor had just departed. To make the story perfect we ought to have been starving people at the last gasp, providentially saved by the food thus opportunely placed at our disposal; but in Norway, even when the sport is at its worst, one is seldom at a loss for a fish diet.

As it is said sarcastically that the biggest fish always escape, meaning that exaggeration is usual in such cases, I must therefore testify to the accuracy with which my friend had estimated the weight of his lost fish. "How big do you think it was?" I asked.

"Certainly over twenty pounds," he replied; "somewhere between that and twenty-five pounds."

Not a bad guess, as it was just twenty-three pounds.

My first day, except for this remarkable coincidence, was normal; neither very good nor very bad, and I need dwell no more upon the details. I got one grilse, and two nice trout weighing $4\frac{1}{2}$ lb. between them—quite enough to keep me amused, and not enough to spoil me by raising my hopes too high. It is sometimes said that Norwegian air prevents newcomers from sleeping, but I was certainly not troubled with insomnia after the long journey, followed by some hours at the river-side. My slumbers were peaceful and profound, unbroken by dreams of tumbling



A LONG CAST.

waves, morose Custom House officers, or encounters with monster salmon.

A. E. GATHORNE-HARDY.

SALMON MIGRATION.

THE value of the theory propounded by Mr. Horace Hutchinson in COUNTRY LIFE of January 16th, based on the hypothesis that the salmon, and its nearest allies among the trout, began by being "fresh-water fish purely," is one that can only be satisfactorily tested by an appeal to zoo-geographical and palæontological data. These, which I propose here to briefly review, point to an opposite conclusion. Considering first the position of the salmonids as a whole among the fishes, it is beyond question that this important

variety increased in the eocene and miocene, where the clupeæ and anchovies (*Engraulis*) occur in numerous species in marine deposits; whilst of the some 200 clupeids known to live at the present day, 90 per cent. are exclusively salt water forms. With the possible exception of two species from the eocene (green river shale) of North America, no fossil fresh-water forms are known. No one, therefore, has ever expressed a doubt as to the clupeids being a group of marine fishes, a few members of which have become adapted to life in fresh waters. We must bear in mind that not a single large family of fishes can be said to be exclusively marine or fresh-water, exceptions always occurring; but in most cases it is easy to ascertain, either from the past or present distribution, and better from both, whether this or that mode of life has been more recently taken to, in the same way as, from such considerations, all naturalists are agreed to regard fresh-water seals and dolphins as descended from marine ancestors, and sea-snakes as derived from fresh-water forms.

Now, having satisfied ourselves that the direct ancestors of the salmonids were marine, it is important to note that some of the forms of clupeids that persist at present behave exactly like our salmon and trout. Thus we have species of *Clupea* and related genera which are entirely confined to fresh water, others which have formed land-locked races, whilst a few are anadromous, ascending rivers to spawn, the shad and thwaite being well-known examples of the latter category, and

showing exactly the same "homing" instinct as the salmon and sea-trout.

This analogy between the clupeids and salmonids is highly suggestive. It remains to be seen what arguments zoology and palæontology afford in the case of the latter. Salmonids are divided into seventeen or eighteen genera, half of which are entirely marine, some being confined to great depths. All the species which live exclusively or periodically in fresh waters



GEOGRAPHICAL DISTRIBUTION OF THE PIKE (*ESOX LUCIUS*).

family stands in the nearest relationship to the herring family, the clupeids, with which they are so closely connected that Agassiz, when dealing with the fossil forms, found himself compelled to unite the two into one group. The clupeids, which, from the evolutionary point of view, must be regarded as the ancestors of the salmon, can be traced back to cretaceous seas, in which they were already represented by forms more or less closely allied to our herrings (*Clupea*). The abundance and

occur in the temperate and arctic parts of the Northern Hemisphere, with the exception of a sort of smelt (*Retropinna*) from New Zealand. In the case of fresh-water groups of fishes, it is well known that their distribution depends on their centre of origin, from which the fish have spread in every direction, often in a manner strikingly in disaccordance with the land fauna of the regions traversed by the rivers, and is not governed by the outlets of these, as is the case with the anadromous and catadromous forms which may occur in the same waters. Thus there is a very striking homogeneity in the fish-fauna of all the great rivers of Africa, due, no doubt, to the peculiar types having had their original home in the vast central lakes which, geology teaches, existed in early tertiary times. No such thing is observable in the present distribution of the salmonids. If the salmon had originated in Europe or in America as a fresh-water fish, its present range would surely be an entirely different one. Take the example of the pike, a strictly fresh-water family, traced back to the lower miocene. The common pike extends right across Europe, Asia, and North America, thus showing that at a remote period, when the configuration of the extreme North permitted a passage from the Old World into the New, the fish availed itself of rivers to spread over the whole realm offering suitable climatic conditions.

Compare with this the distribution of the most widely-spread salmonid, the true salmon. It is at once obvious, from a glance at the accompanying map, that the North Atlantic was its original home, as the only waters in which it now breeds empty into it. Nowhere is it found indigenous in watersheds of the Mediterranean or the Pacific, whilst the Pacific anadromous species of *Salmo* occur on both the American and Asiatic side. The land-locked salmon, regarded as races of the true salmon, are only known from lakes in Sweden, Maine, and Canada, which at a recent period, geologically speaking, must have been connected with the Atlantic. These facts appear to me to furnish very strong arguments in favour of the marine origin of the salmon proper, the species on which Mr. Hutchinson primarily bases his theory, and evidence of a similar nature could be adduced in the case of all other fresh-water and anadromous salmonids.

No certain remains of salmonids are known older than miocene, and these include marine (*Osmerus*) as well as fresh-water (*Thaumaturus*, *Prothymallus*) types, things having been already there very much as they are at present. But, whilst certain fresh-water deposits in Central Europe, of miocene age, have yielded a very large series of forms of vertebrate animals, now mostly still represented by close allies in various parts of the Northern Hemisphere, no trace of salmonids have been found in them. I allude to the beds of Oeningen in Baden, famous for the gigantic salamander, first described as *Homo diluvii testis*, and of Rott and Ling on the Rhine, localities where at present both salmon and trout occur, and which have yielded in great abundance remains of eels, pike, *Leuciscus* (roach, dace, etc.), tench, gudgeon, bitterling, loaches, etc., all strictly fresh-water fishes, but not one salmonid.

Until the geological history of the genus *Salmo* has been placed on a more satisfactory footing than it stands at present, it is, of course, impossible to settle, with any certitude, the question raised by Mr. Hutchinson; but, in my opinion, the facts with which we are already acquainted speak against his suggestion.

G. A. BOULENGER.

FOOTPRINTS IN THE SNOW.

IN London the advent of snow is never hailed with delight by any portion of the community. However much we deplore the prospect of a "green Christmas," when we wake to find the forecast falsified, and all the outside world buried under several inches of snow, we are more or less dismayed. For does not the smooth, clean surface rapidly degenerate into a furrowed grey morass, and then, by the scavengers' aid, into dismal heaps of slush and soot? Does not every passing hansom bring with it a shower, sent up as it were from the nether world, to bespatter all within its range? And as the thaw comes—But the very thought of a London thaw is too awful for contemplation! In the country, and, above all, among the hills, all is different. There the snow falls white, and remains white—and there is some prospect of its lying. There are broad expanses where it remains unsullied by wheel, or smoke, or broom until it vanishes into the greenness of the spring.

When the thaw comes, it cannot seize upon all at once, to involve all in one grey slough; there are drifts on the hilltops 20ft. deep, and these fight hard against annihilation. The keen mountain air helps them; they yield only inch by inch, and the slightest fall in the temperature is sufficient to restore their icy firmness. At the beginning of February they are in their full vigour and beauty—the weaklings have been overwhelmed, victims to the thaw and the sun; the strongest remain, their broad surfaces turned defiantly

to face the sun, and to shelter and absorb any chance snowflake or ice-needle that is whirled helplessly along by the winter wind.

To most men, and to every town-bred visitor, to whom the country is a weird mixture of pleasing rustic ideals and dull, muddy realities, there are few places less attractive than such broad level tracts of snow-covered moorland. Vegetation is hidden, or, at all events, disguised; landmarks are obliterated; all is reduced to a dead level of monotony. But for those who have eyes to see, and woodcraft to read what they see, all is teeming with signs of life. Everywhere there are tracks of animals, and everywhere there are traces of war, of the stern struggle for survival. When the snow is melting, every footprint is reproduced in it as in plaster of Paris, and when it freezes again an infallible clue to all the living creatures that have passed over it is left imprinted on its surface. The ideal place for thus learning something of the science of venerie is afforded by the lower slopes of our Lakeland hills after a slight fall of snow. Starting from a village at the foot of the hill, we leave the beaten highway, with its confused tracks



GEOGRAPHICAL DISTRIBUTION OF THE SALMON (*SALMO SALAR*).

of man, beast, and cart, and strike across the rising ground towards the fells. The last field on the upland is given up to poultry, and close to their shed—a ramshackle affair of deal and tarred felt—we come upon a strangely regular track. It is smoothly trodden, running in ever-diminishing circles round the shed. Near the hen-roost a deeper imprint of the feet is followed by a single track of lengthened pace, leading to the corner of the field furthest from civilisation; these footprints are sufficient to warn the farmer that a fox has been there, and has been disturbed while "loitering with intent." Disappointed of his hopes, the fox has had to run elsewhere for his supper. His home is an earth in the gully formed by two spurs of the hill above us. Between it and the farm is half a mile of mixed country—now undulating like the downs, now broken up into a number of distinct knolls, not unlike large ant-hills. Not a living creature is in sight, but all around the snow is scored with the footprints of animals—many and various, and among these numerous tracks, which cross and recross each other, there can be distinguished a set which tell of another disappointment which has befallen Reynard. A deep depression in the snow, slightly sheltered by two out-cropping rocks, marks the temporary home, or "form," of a hare. The broken sides of this depression, and other confused imprints in the snow, point to a short, sharp conflict, and a tuft of fur lying close at hand confirms the suspicion that a hare has been surprised by the fox, and almost captured. She has escaped, however, as her tracks continue; and she has not been pursued far, for her headlong flight has soon been abandoned for the easier canter, or "lope," usually associated with her course.

These deductions, which may seem marvellous to those unskilled in woodcraft, depend upon a single, very simple fact. The ordinary fore-and-



FIG. I.



FIG. II.

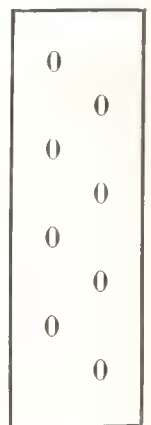


FIG. III.

aft movements of a hare, when made across snow or soft earth, leave behind them an irregular imprint, as in Fig. I. When disturbed, she mends her pace, and her canter becomes a gallop, leaving traces as in Fig. II. It is easy, therefore, to judge of the method in which she was travelling; and to the experienced eye the depth of the footprints, and the extent of their drag or catch in the snow, will be sufficient to indicate the exact rate of her progress, for, if the snow be fairly thick, no moving creature can leave a clear-cut footprint without a blurred outline at either toe or heel. One possible source of confusion there is, for Fig. II. represents also the tracks of a rabbit when "pulling up" or slackening speed; but, apart from the question of size, the ordinary track of the rabbit is as in Fig. III.,

and unless this pattern is visible near the marks in question there is little doubt that the "spoor" is that of a hare.

There are other tracks which require more detailed knowledge to decipher them. The badger is rare, but by no means extinct in the more remote parts of Cumberland and Westmoreland; game is abundant, and grouse, partridge, and blackcock each have their distinguishing signs; the raven, too, must find food and warmth, and settles as close as he dare to the sheep that even in winter frequent the fells, making their way by instinct over the obliterated paths.

Lastly, there are all the sworn enemies of the keeper—weasels,

stoats, and rats—who go each their several ways, until they fall victims to the gun, and are carried off to be nailed as trophies the door of the keeper's shed, or to a tree in the coppice near his house. All have their own especial interest, and only the blindness of ignorance and indifference keeps us from seeing in our walks in the country the traces of their presence. The snow-clad country lane is no longer dull to him to whom every smout-hole recalls visions of all the various creatures whose footprints remain to tell of their passing by, possibly only a few seconds before his intruding step was first heard.

A BOOK OF THE WEEK.

THE curious method of publication adopted in regard to *English Literature; an Illustrated Record* (Heinemann), by Dr. Garnett and Mr. Edmund Gosse, has placed the work at a slight disadvantage for reviewing. Vols. I. and III. were published some months ago, and now come Vols. II. and IV., with a hiatus between them. Vol. II., with which we shall deal first, treats of English literature from the time of Henry VIII. to that of Milton. In other words, it is practically a treatise on the Elizabethan writers, including the dramatists, the poets, and the prosemen. Concerning Shakespeare it is sufficient to look at the chapter headings—"His Absolute Supremacy," "His Consummate Art and Genius," "The Overawing Vastness of Shakespeare"—to gather the style in which this great writer is treated. The result is not very stimulating. It must have puzzled Dr. Garnett a good deal to decide upon the method of quotation best calculated to display the merit of his authors. He does not, as far as we can see, pretend to take the best from Shakespeare, and probably would plead that the best has become hackneyed. "Fear no more the heat of the sun," "Come unto these yellow sands," "Hark! hark! the lark at heaven's gate sings," and other perfect gems of song, everybody knows. Yet to have repeated these would have been better than to give a selection of passages that are not of the first rank. We find the same fault in his account of Shakespeare's brilliant predecessor, Christopher Marlowe. It would be a very easy task to construct an anthology that would exclude everything here quoted and yet be representative of Marlowe's best; but a writer who did that would have to dare to follow in the footsteps of others, and give passages which have often been given before. It would have been extremely interesting to see what passages in Shakespeare Dr. Garnett considers to reach the very highest rank in poetry. Assuredly if Matthew Arnold had been doing this history, he would have considered it a very important part of his task to select and compare the finest passages.

The treatment of Ben Jonson and the other successors of Shakespeare inspires us chiefly with a firm belief that it would have been wiser to adopt a purely historical attitude and avoid criticism altogether. Ben Jonson may be taken as the criterion of a man's fitness for the task of criticising English literature. Dr. Garnett faithfully adheres to the ancient and orthodox opinion.

We do not think that the illustrations to these volumes are quite as happy as were those of their predecessors. They consist largely of portraits, title-pages, views of old ruins, and kindred subjects, and as often as not they interrupt the text instead of illustrating it. There is a short paragraph about Tusser's "Hundred Good Points of Husbandry," but the title-page is given with the characteristic verse:

"A hundreth good pointes, of good husbandry,
maintaineth good household, with huswifry.
Housekeeping and husbandry, if it be good:
must loue one another, as cousinnes in blood.
The wife to, must husband as well as the man:
or farewel thy husbandry, doe what thou can."

This is one of the happier illustrations.

Ballad poetry is very inadequately dealt with. Dr. Garnett asserts that "the great bulk of the Border Minstrelsy probably came into existence during this (the sixteenth) century." Of course, this is very doubtful. The ballad which is quoted, "The Wife of Usher's Well," was first printed in Scott's *Border Minstrelsy*, and its age is a matter of guesswork pure and simple. An equally good, authentic example might have been found of Elizabethan ballad poetry. It can with no accuracy of language be said that the ballad part has been well done.

The larger and bulkier Vol. IV. is done entirely by Mr. Edmund Gosse, and as it begins with Cowper and ends with Swinburne, as far as poetry is concerned it ought to be taken as a treatise on a well-defined epoch. It is only possible to glance in passing at the various poets. The omission of the late W. E. Henley's name has to be noted. Three pieces from Blake are

selected for quotation, "Holy Thursday," "The Wild Flower's Song," and "Ah! Sunflower," of which we print the last:

"Ah! Sunflower, weary of time,
Who countest the steps of the sun;
Seeking after that sweet golden clime
Where the traveller's journey is done;
Where the youth, pined away with desire,
And the pale virgin, shrouded in snow,
Arise from their graves and aspire
Where my Sunflower wishes to go!"

The little paragraph about Burns is simply amazing, and the quotations are from "Tam o' Shanter," the "Address to the Deil," "Whistle, and I'll come to You, My Lad," "A Red, Red Rose," and "Jo Anderson, My Jo." It is difficult to suggest what would be thoroughly characteristic of Robert Burns, and this is by no means so unhappy as the anthology picked



H. W. Barnett.

M. RODIN.

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out of Wordsworth. In such a work the biographical or self-revealing part ought to find a place, and the favourite pieces of Wordsworth give his personality in a wonderful manner. Mr. Gosse has quoted one such passage, which we give, but he might have added others to it:

"The sounding cataract
Haunted me like a passion; the tall rock,
The mountain, and the deep and gloomy wood,
Their colours and their forms, were then to me
An appetite: a feeling and a love,
That had no need of a remoter charm,
By thought supplied, or any interest
Unborrowed from the eye. That time is past,
And all its aching joys are now no more,
And all its dizzy raptures: Not for this
Faint I, nor mourn, nor murmur; other gifts



M. Emil Frechon

AFTER THE DAY'S WORK.

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Have followed, for such loss I would believe,
Abundant recompence. For I have learn'd
To look on Nature, not as in the hour
Of thoughtless youth; but hearing oftentimes
The still sad music of humanity,
Not harsh nor grating, though of ample power
To chasten and subdue. And I have felt
A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean, and the living air,
And the blue sky, and in the mind of man."

From Coleridge "Kubla Khan" is very properly taken, though the most beautiful of the quatrains is spoiled by the printing. It is partly obscured by a half-page fac-simile, and directly beneath it is reproduced a bill of the London Philosophical Society, a very artless combination indeed.

Scott certainly does not receive his proper meed of praise as a poet, and something better might have been found to quote than "Hail to the Chieft," "Young Lochinvar," or "Hushed is the Harp." There are scores of better passages in "Marmion," and there is nothing in his works that illuminates his personality more than the lines which he appended to "The Lady of the Lake":

"Yet, once again, farewell, thou Minstrel harp!
Yet once again forgive my feeble sway,
And little reck I of the censure sharp
May idly cavil at an idle lay.
Much have I owed thy strains on life's long way
Through secret woes the world has never known,
When on the weary night dawn'd wearier day,
And bitterer was the grief devour'd alone.
That I o'erlive such woes, Enchantress, is thine own.
Hark! as my lingering footsteps slow retire,
Some Spirit of the Air has waked thy string!
'Tis now a seraph bold, with touch of fire,
'Tis now the brush of Fairy's frolic wing.
Receding now the dying numbers ring
Fainter and fainter down the rugged dell,
And now the mountain breezes scarcely bring
A wandering witch-note of the distant spell—
And now, 'tis silent all!—Enchantress, fare thee well!"

The quotations from Tennyson are not bad, and yet they are not very skilfully made. There are many of his very short poems that would show the whole spirit of the man much better than the scraps here presented. We might quote as an example those wonderful lines in "The Foresters":

"To sleep! to sleep! The long bright day is done,
And darkness rises from the fallen sun.
To sleep! to sleep!
Whate'er thy joys, they vanish with the day;
Whate'er thy griefs, in sleep they fade away.
To sleep! to sleep!
Sleep, mournful heart, and let the past be past:
Sleep, happy soul! all life will sleep at last.
To sleep! to sleep!"

It would be a long and difficult task to follow Mr. Gosse through the multitudinous authors of the nineteenth century, and, sooth to say, it would not be a very profitable one. He ends with a curious little essay wherein he propounds certain doctrines of what he calls scientific criticism, in which he says "that a sensible observation of what Darwin and Mr. Herbert Spencer have demonstrated ought to aid us extremely in learning our trade as critics and in conducting it in a business-like manner." Upon this text it would be easy to found a telling criticism of the work done by Mr. Edmund Gosse, for what would science as applied to literature do? It would define the elements that go to make a great writer, and the first of these is the natural genius or temperament of the person. This genius must of necessity be reflected in the best work. Imagination, the act of bodying forth, is the setting down of an impression of men or things. Now genius or temperament ought to be traced in art, and also traced in lineage; for man is the product of his ancestors, and genealogy is one of the essentials that ought to be brought to bear on criticism. To go with the natural genius there are the circumstances that have developed it. We spare the quotation, "Full many a flower, etc.," but it is most clear and evident that "as the twig is bent, the tree's inclined," and the forces and influences brought to bear upon childhood have an enormous effect in giving colour to subsequent work and character. Tennyson to the last of his days carried the wolds and fens of Lincolnshire in his head along with the refining memory of the Rectory at Somersby; George Eliot never lost touch of the Midlands where

she was born; Thomas Carlyle remained a Dumfriesshire peasant to the end of his life; even Shakespeare, in his hearty, wholesome, outdoor breezy spirit carries with him the atmosphere of Stratford-on-Avon. Thus a close study of childhood is essential to any criticism that dares to call itself scientific. Subsequent circumstances, too, go to the making of the man, and it is in tracing out the particulars as to these facts that the scientific spirit may be most properly employed. We are not far wrong in saying that if Mr. Gosse had possessed it in any marked degree nineteen-twentieths of his text and the whole of his quotations would have had to be revised and radically changed.

ON THE GREEN.

MITCHAM revisited" might be an appropriate title for a golfing essay especially addressed to green committees. It is not to be supposed that any of them would read it, and a better way for them no doubt would be, if they were acquainted with the Mitcham course in the old days, to go and see it now. It is almost inadequate to say that improvement has taken place in the greens. The better way of putting it would almost be to say that they have been created. In the old days the greens were very faulty, and there was very little of them. It was not a very kindly soil—only a thin coating of good stuff over a sterile gravel—but the putting greens, by dint of sprinkling good old and enriched soil upon the existing surface, and letting the native grass come up through and in that new surface, have become just about as good as greens can be. They are a fine object-lesson in the efficacy of this treatment for even the most unpromising natural soil.

A Scottish ladies' championship, to be played at Prestwick, is advertised for the days just before the ladies' open championship (open, that is to say, to all ladies without respect to nationality) to be played on the neighbouring links of Troon. This is interesting, not so much because of the actual fact of the Scottish championship, as because it certainly seems to imply that there will be a good many Scottish competitors in the larger tournament. Hitherto there has been a good deal of something like conscientious abstinence from the championship on the part of the Scottish ladies; but this is hardly likely to be maintained in the circumstances of this year's meeting. In forecasting the probable results it has to be remembered that Prestwick is the very stronghold of the Whigham sisters, who have been so well up in the running at former championships that they have been a little unlucky not yet to have won outright. They have the credit, very thoroughly deserved, of being tremendous drivers; judged, of course, on the feminine standard.

A great and powerful golfing company seems to be assembling at Pau, including Mr. Maxwell, the amateur champion, the brothers Hunter, Mr. Charles Hutchings, and others of great fame. It all looks as if they meant to smash poor Biarritz into small pieces in the team match. As a rule, Biarritz wins these team contests, probably because there are so very many more players to select from at Biarritz than at Pau, but generally Pau manages to produce a pretty useful pair to meet Biarritz in the annual foursome business. I rather think the Bearnais has had the better of the Basses Pyrenees on this score, though Biarritz has won nearly "every time" in the team match. But it does not look as if it would be so this year, unless Biarritz also gets some accession to its usual golfing strength. Lord Kilmaine has given a cup for the "Championship of the Pyrenees," or some such resounding title, and though it is not, of course, to be suggested for a moment that the expedition of these Scotsmen to Pau is in any sense a pot-hunting one—it would be a costly pot that would be worth all that hunting—still it is very likely that a natural wish on Lord Kilmaine's part to have a good field for the first competition of his cup has something to do with this southern migration of the Scot. They will know a difference between the air of North Berwick and of Pau. Comparison between the merits of Pau and Biarritz never ceases to agitate the souls of the *habitués*

of either. As for their golf, that at Pau is the better, but that at Biarritz is the more amusing. If you want to play a match with a man you think you can beat, play him at Pau. If you are taking odds in money from a better player, and are tackling him at evens, tackle him at Biarritz, for there anything may happen.

Having lately written a homily on the gentle art of golfing irritation, and on the iniquity of those who wantonly offend the golfing susceptibilities of others, it has been pointed out to me that I was lately, and quite unwittingly, a most gross offender in this regard. And in what, do you suppose, did this offence consist? In the fact that I was only playing with four clubs, of which only one, the driver, was a wooden one, and that I broke this only wooden one a few holes from the start! It was very foolish, no doubt, to go out with only one wooden club, but it would seem natural to suppose that when it broke I should be the severest sufferer. Not so, however. I happened to have a cleeck that would send the ball a good long way, so that really my loss was little. But my opponent, on the other hand, was at a terrible disadvantage. He was playing against a man who had nothing but iron clubs. He was a scratch player—or, rather, a penalised player—he was on his own green, and the indignity of having to play a man using only iron clubs weighed so heavily on his proud spirit that I beat him easily. Very likely I should not have beaten him nearly so easily if I had had my driver and he had had his dignity. But his loss was heavier than mine. It was pointed out to me afterwards how badly I had treated him; and, when it was shown to me, I saw it at once. But the fact that he was the injured party had not occurred to me at all in course of play. It only shows how little we know ourselves and the way that others take our simplest acts. I shall never go about again with only one wooden club.

HORACE HUTCHINSON.

FROM THE FARMS.

DAIRY IMPORTS OF 1903.

BOTH in quantity and value the dairy imports for 1903 are the highest yet recorded, amounting to a total of 7,638,091 cwt., the value of which is given as £30,169,355. They are arranged in three divisions, butter, margarine, and cheese, and the great increase is in butter, cheese and margarine being practically at a standstill. The chief exporting countries are Denmark, which sent us three times as much as any other country; Russia and France, which are not far from being equal; Australasia, Holland, Sweden, Canada, the United States, and Germany. It will be seen that Australasia has fallen back from the high position it held in 1901 and 1902. The trade from Russia is one of the most remarkable. Before the year 1900 it was not specifically enumerated, but the quantity sent was included in that from "other countries." It has certainly increased at a very remarkable rate. Russian butter is made for the greater part in Siberia, and is shipped to Riga in refrigerator cars. In France it is evident that special exertions have been made to keep up the exportation of butter. The falling away of Australasia is probably due to the recent drought. The imports from Canada and the United States show a decrease, and those from Germany have very greatly diminished. Canada still sends us more cheese than any other country, the United States, Holland, Australasia, and France following in the order named, but very far behind the Dominion. Our exports of dairy produce are very insignificant, although that of butter shows a tendency to increase.

A TYPICAL SHORTHORN.

The bull Count Nicholas, 73,435, shown in our illustration, was the highest priced at the recent sales of English shorthorns in the Argentine. He is a roan, calved in 1899. He was bred by that famous shorthorn man, Mr. William Duthie of Colyne. He was for some time stock bull in the well-known herd of Mr. B. Grainger, who exhibited him with great success at the Highland and other leading shows in Scotland. In the autumn of last year he was purchased by a well-known firm of exporters to the Argentine, where he realised £1,444 15s. 6d. by auction. Count Nicholas is a grand type of shorthorn, massive, thick-fleshed, symmetrical, and full of quality. He is by Count Arthur, a son of Mr. J. Deane Willis's Count Lavenser, one of the most famous bulls of modern times.

THE OUTLOOK.

At present the outlook for agriculture is entirely suitable to the bare and desolate character of the landscape, now at its wintriest. Trees and hedges stand out black and bare without a leaf on them, and very little greenery is to be seen either in plantation or in hedgerow. Yet the season has not been by any means a harsh or inclement



G. H. Parsons.

A HIGH-PRICED BULL.

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one, as testify the little daisies that already are showing their early blossoms, only the incessant rain has reduced work to a standstill. On many hundred acres the potatoes are still in the fields, and it is doubtful now if they will ever be dug out. Scarcely any preparation has been possible for next year's crop, beyond the usual carting out of the manure from stable and cowshed. Yet importation goes on at an undiminished rate, and there does not seem at the present any chance whatever that prices will rise to a degree that will compensate for the heavy losses. Not for forty years have prospects been so bad, and the only consolation is that things must turn out better than is expected at present, for the simple reason that it is impossible for them to be worse.

WEATHER-LORE.

It is somewhat difficult to forecast the weather for the ensuing year from the character of January, although the number of rhymes on the subject ought to be conclusive, if it be true that each of them is the wisdom of many and the wit of one. First we are told that "The ill year comes in swimming," and it certainly did rain on January 1st. A snowy year is said to be a good one, but up to the time of writing there has been no snow to speak of except in the North.

"If January kalends be summerly gay,
'Twill be winterly weather 'till the kalends of May."

This is not comforting for those who prefer their winter in winter, and not in the middle of spring. But there are many proverbs equally insistent upon the point, as:

"In Janiveer, if the sun appear,
March and April will pay full dear,"

and this pregnant one:

"January warm! The Lord have mercy,"

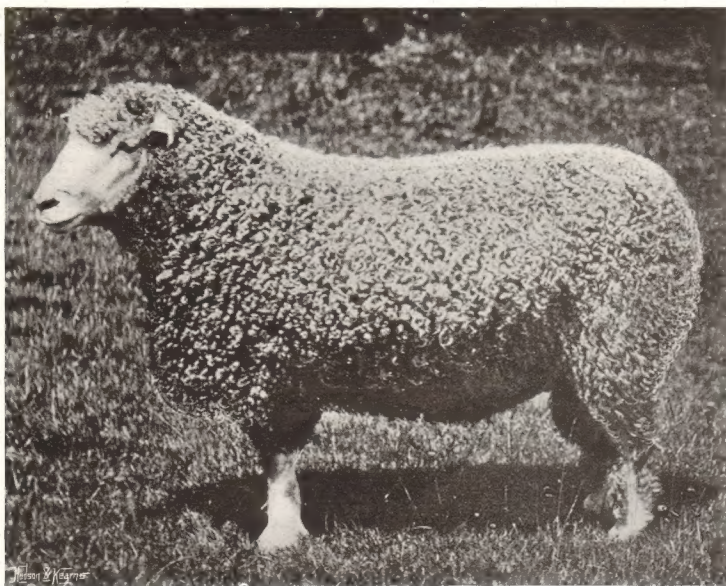
and lastly:

"When the grass grows in Janiveer,
It grows the worse for it all the year."

But in these proverbs there is no direct guidance, because, as a matter of fact, we have had a singular mixture of weather in January, and no one type has seemed to prevail over the others.

A DARTMOOR RAM.

Perfection, the Dartmoor ram which gained premier honours at the Royal Agricultural Show, 1903, is the property of Mr. John R. T. Kingwell, of Great Aish, South Brent, South Devon. This animal is considered by competent judges to be as near perfection as possible. His owner has taken a keen interest in sheep-breeding all his life, but we believe it was not until 1896 that he was induced by his eldest son to show some picked



PERFECTION.

specimens from his pedigree flock. The photograph is by Mr. W. R. Gay of South Brent.

THE LAYING COMPETITION.

The annual laying competition of the Utility Poultry Club, which commenced on October 12th, 1903, is being held at the Butts Poultry Farm, Ashover, Chesterfield, under the management of Mr. P. Rawson Birks. The quarter's results show that pen No. 26 of White Wyandottes has done best so far. The hens in it have laid 174 eggs and made an aggregate of 347 points. Next to them in order of merit come pen No. 5 of White Wyandottes, pen No. 28, Buff Orpingtons, pen No. 6, Buff Rocks, pen No. 7, Black Orpingtons, pen No. 17, White Wyandottes, and pen No. 29, Buff Orpingtons. All these have made over 200 points, and it should be mentioned that two points are given for every egg weighing over 1½ oz., and one point for every egg weighing that or less. In four of the pens pullets

have been brooding, and thus the hens have been handicapped. The health of the birds is reported as being excellent, although, like every other kind of creature, they must have suffered much from the continual wet weather.

LITERARY NOTES.

PROBABLY most people have at one time or another inherited or acquired some bits of old china, but how few know anything of the history or value of their possessions. For the rich collector there are many expensive and elaborate books on the subject of pottery and porcelain, but hitherto there has been no cheap but comprehensive work suitable for the amateur desirous of identifying his existing possessions or of starting a modest collection. Mrs. Hodgson's book, *How to Identify Old China* (Bell), will be very useful to those who wish to gain some knowledge of the subject without any great expenditure of money or time. The introduction contains an interesting historical summary, from which it appears that although earthenware was made in this country from very early times, porcelain was not manufactured here until nearly the middle of the eighteenth century. It was, however, imported from China very much earlier, and there is a record of a "poringer of white porselyn" and a "cupp of green porselyn" belonging to Queen Elizabeth. But the importation did not amount to much until the East India Company was established in 1650, when china and tea "came in" together. The first duty of the would-be collector of porcelain is to learn to recognise the difference between it and earthenware—not a very difficult matter, for china or porcelain is translucent, while pottery or earthenware is opaque. China also feels colder to the touch than pottery. For the further enlightenment of the amateur Mrs. Hodgson describes and gives numerous illustrations of almost every variety of English pottery and porcelain. She also shows a great many marks, which should be very useful in helping people to identify their ware. It is impossible to admire all the illustrations, many of which show specimens more curious than beautiful, such as ware decorated with views and portraits, and only too many pieces are of ungainly shape. It may be roughly said that nothing really good was produced after the end of the eighteenth century, and some time before that a great deal of bad art began to make its appearance. But it is to be feared that most collectors pursue mere rarity, and neither know nor care for artistic quality. A very curious sort of pottery was Wedgwood's "pie-crust ware," made with the object of avoiding the use of flour for pastry in times of scarcity. In this connection Mrs. Hodgson relates that in July, 1800, flour was so scarce that the consumption of it for pastry was forbidden in the Royal household, rice being used as a substitute. The book ends with some good advice to amateurs on the subject of buying china, and a word of caution is given to those who think that rare and beautiful specimens may be picked up for an "old song." Thus, every variety of "old English china," correctly marked, is made in Paris, and offered to the unwary as antique, while scarcely cool from the oven. Collectors are also warned against the common trick of unscrupulous dealers, who "plant" sham antiques in farmhouses and cottages to tempt the foolish buyer. It is a pity the book has no index.

Among the many excellent works which appeal especially to the athlete, that recently published under the title of *Self-defence* is worthy of a prominent place. The book is by Mr. R. G. Allanson-Winn, the well-known authority on boxing, and Mr. C. E. Walker, whose admirable works on fishing and shooting have afforded many a pleasant hour's reading. *Self-defence* is a guide to boxing, quarter-staff and bayonet exercises, fencing, walking-stick and cudgel practice. The subject is not new, but there is much in the book which well repays perusal, especially to those who are in the embryo stage of athletics. Even the finished gladiator may spend a pleasant hour in going through its pages, and, as the authors point out, an old man, if an expert swordsman, can make use of a walking-stick for pointing, turning aside a blow, or parrying a thrust just as well as the most powerful young man can. A strong, healthy man of seventy is able to put in a severe and telling punch, if he only knows how to deliver it and where to plant it. In their introduction the authors make reference to the old prize-ring, and give certain famous warriors of the old days as examples to be followed. "Accounts of gladiatorial contests, and the dangerous games of the ancients, wherein the deadly cestus played such an important part, may have had an effect upon our youthful minds at school and college but the fights of Mendoza and Humphries in the eighteenth century, and of such men as Caunt, Bendigo, Perry, Langham, Sayers, King, and Mace in the nineteenth century, did more—far more—to bring home to boys and young men alike the desirability of cultivating their powers of strength and endurance." Very skilfully have the authors set out the positions to be observed by the learner, and much admirable advice is tendered. The reader is also shown the undesirability of wasting one's strength by unnecessary effort, and is advised how to hit and when to hit. The importance of leg work is ably and clearly pointed out, and, as a guide to the learner, this portion of the book is extremely valuable. Fencing in all its branches receives due attention, and here again the advice tendered is of the best. Altogether, the book is well worth thoroughly studying. The publishers are Messrs. Lawrence and Bullen, Limited, 16, Henrietta Street, Covent Garden, W.C.

Complaints are often heard of the lack of true artistic knowledge and taste in this country. If there be any truth in the accusation, the deficiencies of the public are certainly not due to any want of books on art, for these pour from the press in an amazingly copious stream, at prices varying from one shilling up to many guineas. The greater part take the form of illustrated monographs on individual artists, but the volume on Velasquez is one of a somewhat novel series now being issued by George Newnes and Co. The text is limited to a short biographical sketch of some six or seven pages, while the rest of the book consists of sixty-four illustrations, each occupying a whole page, which is large enough for a satisfactory reproduction of all but quite the biggest pictures, such as the "Surrender of Breda," or the "Tapestry Weavers" (Las Hilanderas). A list is also given of the artist's principal

works, together with a note of where they are to be found. There is much to be said in favour of such an arrangement, especially in the case of a painter like Velasquez, whose art is of a kind that speaks direct to the intelligence of even the unlearned; and no better help to an art-education, except the study of the originals, could be desired than the series of sixty-four wonderful pictures here reproduced. It is curious to note that England possesses a far larger number of Velasquez's works than any other country, even including Spain. Our public collections own twenty-two, several of them pictures of the first importance, while private owners can boast of no less than 117. Spain has only fifty-nine at Madrid, and five in other public collections, while private owners in that country can only muster fifteen between them. The present selection has been very well made, showing, as it does, not only the best-known pictures, such as the portraits of "Philip IV.," "Don Balthazar Carlos," "Pope Innocent X." (considered by Sir Joshua Reynolds to be the finest picture in Rome), and others familiar to all, but also the less-known but highly interesting "Venus and Cupid," from the collection of H. Morrett, Esq., the "Mars" from the Prado, and the "Mercury and Argus" from the same gallery—all of them studies of the nude. We think that the book would have gained in interest if the pictures had been arranged, as far as possible, in chronological order instead of according to the collections in which they are contained. It only remains to be said that the biographical sketch of Velasquez by Mr. A. L. Baldry is excellent, though, owing no doubt to its shortness, it contains little or no criticism of the master's art. But perhaps this might have been thought superfluous while the fine work of Mr. R. A. M. Stevenson is still fresh in every art-lover's memory.

Several special features in *Hazell's Annual* for 1904 help to perfect this excellent work of reference. A very full index has been added to further simplify its use. The British Empire has now swollen out into an article of no fewer than 50,000 words, and containing all the statistical tables requisite to bring together the facts. One hundred and thirty pages are devoted to the Parliament of Great Britain and Ireland, and the Parliamentary Session of 1903 is another article of 50,000 words, while 30,000 words are devoted to the fiscal question. Religious bodies of the United Kingdom, education, scientific progress and societies, 1903, the weather of 1903, are all interesting features and deserving of special mention.

The seventy-third edition of *Lodge's Peerage* (Kelly's Directories, Limited) is an exhaustive account of the English aristocracy. The most notable new feature is that the baronets are now given in the same full manner as the peers, and the knights, instead of being put in a bare list, as was the case up to 1903, have some account of the family accompanying each. It is interesting to note that during 1903 the following baronetcies became extinct: Bramwell, Call, Maple, Parker, and Reid. The general character and accuracy of the work are so well known as to need no further commendation from us.

Flora and Sylva (17, Farnival Street, E.C.) is one of the most sumptuous magazines now issued. The paper it is printed on is hand-made and the best of its kind. The illustrations, both in colour and in black and white, are beyond criticism. "I went home for Baskerville's Virgil," says the editor, "and asked him to get as near to it as he could in type, went with flower drawings to the best colour printer in Europe, to the paper-mills that still make real paper, and found surviving a wood-engraver who understood my good artist's drawings, and so began." The result is certainly magnificent, and Mr. Robinson deserves the very highest praise for providing such a magazine for the British public, and at the same time setting a standard of printing and illustration that others may equal, but no one is likely to surpass.

CORRESPONDENCE.

A SCHOOL OF FORESTRY.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—In a paper called "The Forests of the Oise," in Mme. Duclaux's recently published book, "The Fields of France," there occurs this sentence: "Forestry in France is not only an art, a science, an industry, a passion. . . . At Nancy there is an Ecole Forestière which forms to this kindly calling the pupils of the Agronomic Institute. Thence sometimes, or else from Stuttgart, we draw our foresters for the vast forests of India, because in England we have no School of Forestry." The italics are not Mme. Duclaux's, but chosen to emphasise the fact that in England, rural England, we have no school of forestry. Would it not be an advantage in our country, where every profession is overcrowded, to open a new one, and fill ourselves a branch now left, at least in India, to be supplied from France or Germany? We complain a good deal of the intrusion of the foreigner; here is one little green door that might be shut in our interests. It is remarkable that forestry is comparatively neglected in England, a country of trees. Cause and effect in this are most likely synonymous. We do not greatly cultivate forestry, therefore we provide no school of training for it. We have no school of forestry, therefore we have no profession of forestry in the sense that it is a profession in France and Germany. If there were more openings in this direction, no doubt many pupils would welcome an opportunity of taking up an outdoor occupation. The authority for Mme. Duclaux's statement is probably her first husband, M. James Darmesteter, one of the most eminent (as well as modest) of men that France knew in the last century. His acquaintance with India was thorough and comprehensive. —A FOREST-LOVER.

THE LITTLE EGRET.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—In connection with my article in a recent number on the little egret, perhaps you would like to reproduce the enclosed photograph of the nest of this bird. The egrets did not build on trees, but on low bushes not many feet above the surface of the water; and as these were too slender to bear my



weight with the camera, the branch was cut off and lowered two or three feet to allow me to show the eggs.—R. B. LODGE.

LEDGES ON DOWNS.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I have been following with much interest the correspondence in your paper concerning ridges on downland. One of your correspondents, I notice, quotes Darwin as his authority, while Mr. McConnell refers to an article in *Nature* in support of his theory that the curious formation is wholly due to sheep. I have been unable to trace this article, but in *Nature* for February 28th, 1889, the whole matter is thoroughly discussed by Professor A. Ernst, who writes from Caracas, where ledges of this description are exceedingly common on the mountain slopes. He says: "It seemed impossible to me to admit the explanation given by people that they were the result of the trampling of cattle, for there were no cattle grazing on these slopes, nor could anyone give me trustworthy information that such had formerly been the case." Nor could he reconcile himself to Darwin's theory that the earthworms are an important factor in this formation, for on making careful investigation he found that these animals were exceedingly rare in the soil of the slopes he examined. Darwin himself, in his "Vegetable Mould and Earthworms," acknowledged that in a valley in Westmoreland the formation was "in no way connected with the action of worms." "It appeared," he said, "as if the whole superficial, somewhat argillaceous earth, while partially held together by the roots of the grasses, had slid a little way down the mountain-sides; and in that sliding had yielded and cracked in horizontal lines transversely to the slope." This Mr. Ernst holds to be the true explanation. He wrote to Darwin on the subject in 1881, and received the following interesting reply: "Should you observe the ledges on the mountains I shall like much to hear the results, though I do not suppose I shall ever again publish on the subject. Since the appearance of my book I have become doubtful whether I have not exaggerated the importance of worms in the formation of ledges. Perhaps they may be due to the sliding down and horizontal cracking of the surface soil." Mr. Ernst's observations, of course, refer to the valley of Caracas in particular, but he is of opinion that as identical causes must be at work in other countries, the formation of ledges on mountain slopes and hillsides will probably always depend "first of all on the conditions of the ground and its vegetation," while the action of earthworms is of secondary importance. I may add from my own observation, although totally unqualified to offer any explanation, that no later than Saturday last I noticed at the seaside ledges left by the retreating tide exactly similar to those seen on downs, and here neither cows, sheep, nor worms could have been the cause. The ledges, as a matter of fact, represented the tiny wavelets frequently seen on a low coast. Is it not equally possible that the ledges on downs might have been originally caused by the subsidence of water?—L. S.

DISPLAY OF HOLLY TREES.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I wish to enter a protest, in the columns of your paper, against the Christmas practice of cutting down without discrimination or mercy all the berry-bearing branches of the holly trees in any district where the holly abounds, chiefly for the ridiculous purpose of putting sprigs of holly in the bodies of pigs and other animals in the butchers' shops. No doubt some will say that it is right the butchers' shops should wear a bright and Christmassy appearance; but I do think that any occasion to the gaiety of the townspeople that is produced by the holly in the butchers' shops is dearly

purchased at the price of spoiling so very many of the holly trees all round London wherever they are not most zealously protected. I see by the *Daily Mail* that the price of holly was a penny the berry in Leeds. If that is so, it is no wonder that the tramps and gipsies cut the holly for sale. But what are we to do? It is impossible on commons and places of that kind for all roads to be watched where there are holly trees, and a gipsy can very quickly cut a berry-decked bough and hide it in his van while no one is looking. I would suggest rather that we attacked the monster at the other end—the real head—and declined to deal with those butchers who had their shops decked in this foolish way. People encourage their servants, too, in a foolish display of so-called "Christmas decorations" in the servants' hall, sacrificing and spoiling beautiful trees for this childish and foolish purpose.—A. F. S.

WOODCOCK WITH DIRTY BILL.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—In the "Correspondence" columns of your issue of January 2nd I notice a letter signed "Argus Olive," in which he states that he has never seen a woodcock with a dirty bill when shot. I beg to state that I shot a woodcock late in the afternoon of January 2nd whose bill was thickly covered with blue clay.—A. H. P.

AN EARLY NEST.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—Perhaps it would interest some of your readers to know that last year I had a brood of starlings, fully fledged, which left their nest on January 23rd. The nest was under the floor of a warm bedroom, and we could hear the old birds feeding their young. We feed the birds, and amongst our visitors we have a blackbird with one leg, a thrush and starling, and a blackbird with white feathers in its wings and tail and a ring of white round its neck, also a blackbird with a crest on its head, which I think is unusual.—T. SUTTON, Surbiton, Surrey.

A BADGER IN TOWN.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I was interested in a letter from a correspondent, accompanied by some excellent photographs of a badger-hunt. Your correspondent mentioned that badgers were scarce and of very shy habits. About three years ago I was helping to lay out a building estate at Streatham, almost opposite the Free Library, and adjoining the main road, which is crowded with traffic, cable trams, etc. Here I found a badger, and with a friend chased him into a corner. As neither of us cared about handling him—knowing his nature—we made a noose with a piece of rope and firmly fastened it on the end of a surveying pole. After some trouble we got it round his neck and walked him across a paddock to a stable, where we kept him. My own opinion is that he must have come in from the country in search of food. To do this he would have to cross Tooting Common, a place too much frequented and too open, one would think, for a badger to cross. I thought this might be of sufficient interest to some of your readers who know the neighbourhood to justify me in trespassing on your valuable space.—JOHN P. MARTIN, Lewes.

BRITISH REPTILES.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—As a humble student of British reptiles, may I be allowed to correct an error in Mr. Graves's article of the 16th. He states that the length

of the British adder, or viper, is usually from 12in. to 18in. This is a very common idea, and one found in many books, but it is nevertheless erroneous. Moreover, it is a dangerous mistake, for it leads people to think that any snake found in this country over 20in. long must be harmless. If the writer of the article will refer to Dr. Leighton's book on "British Serpents," he will find there that as the result of measurements of a very large series of

adders, the average length is found to be from 18in. to 25in., a very different matter. Mr. G. A. Boulenger, of the British Museum, gives the same figures as Dr. Leighton from his numerous measurements. The latter author, on page 77 of the book mentioned, states: "It is probably true to say that if an adder be killed measuring less than 18in. it is a young one, the parents of which, could they be compared with it, would be found to measure several inches more." Mr. Graves mentions the wall lizard as an indigenous species. He should have made it quite clear that this species is found only in the Channel Islands as far as the British Isles are concerned, and that the green lizard also occurs there; on this ground only are these species to be considered British (*vide Field Naturalist's Quarterly*, August, 1903, page 209.—F. R. MACKENZIE, M.A., Edinburgh.

AT THE QUERN.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—In Orkney during the earlier half of last century, when crofts and crops were small, the men would cut a few sheaves with the shearing-hook, thrash them over a stick fixed across a corner of the house, and in the evening, if weather permitted, take their little boat from its noust, and go for an hour or two's fishing in the dusk. Meanwhile the women-folk dried the grain in a pot over the peat fire, ground it afterwards in a hand quern, sifted the meal, and had it

baked into bannocks, in readiness to eat with the cod or sillocks brought home from the sea. The quern is occasionally used at the present day, but only for grinding malt and for making burstin, which is a mixture of oats and bere dried to crispness, ground, but not too fine, and eaten with butter-milk. The quern consists of two circular, flat stones, both pierced by central holes. The lower stone is stationary, a pivot passing through its centre and fitting into a conical recess in a bit of wood fixed across the opening in the upper stone, thereby balancing the latter. The base of the pivot is attached to a wooden horizontal lever, placed at an angle beneath a rude frame. The outer end of the lever is attached to a wooden peg, and by varying the inclination of the angle by the twisting of string attached to this peg the pivot (and with it the upper stone) is raised or lowered as the

requirements of grinding necessitate. The grain is fed through the centre of the upper stone, the stone itself being revolved by an upright handle placed near the circumference. The ground product is sifted into a skape—a circular straw receptacle about 3½ft. to 4ft. in diameter, with a rim 6in. to 8in. deep. The sieve is of sheepskin, pierced with fine holes by means of a hot wire. A little tub-shaped basket for holding the grain is called the lippie. Of perhaps more remote antiquity is the pot quern, a variety of the hand quern consisting of a circular stone basin

with an orifice through the side to permit the meal passing through. A circular stone, with an aperture to admit the grain, fitted loosely into the recess and was turned by hand. A still more ancient grinding-mill, probably of Egyptian antiquity, is the saddle-back quern, whereby an elongated tapering stone was rocked backwards and forwards over the flattened concave bed of the under and heavier stone—truly a slow and primitive process of severing the husk from the kernel.—T. K.



AT THE QUERN.



TWO POT QUERNS AND ONE SADDLE-BACK QUERN.